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ABSTRACT

A low percentage of young women choose to pursue studies in science and mathematics although science and technology continue to dominate change and drive social and economic trends. This guide, compiled by the Nova Scotia Women's Directorate, is a national inventory of 92 programs in Canada designed to teach science and mathematics to girls and young women. Part A, Program Descriptions, contains brief descriptions of each program, organized into four categories--schools, postsecondary, community based, and other resources--and coded as to geographical location. Part B, Program Details, presents additional information about each program: name, location, description, features, resource materials used, resource materials produced, evaluation reports, and contact information. No assessment or evaluation of the programs is included by the authors. (MKR)

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EXPANDING CHOICES

Math & Science Programs for Girls and Women

Prepared for the
Nova Scotia Women's Directorate

Armour & Associates
Halifax, Nova Scotia

July 1992

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Ce document est aussi disponible en français.

ACKNOWLEDGEMENTS

The Nova Scotia Women's Directorate would like to thank all those who made contributions to EXPANDING CHOICES. This includes many teachers, school system administrators, university faculty members and other individuals across the country. They were presented with the task of trying to put information about their programs into the categories designated by the Data Forms. This was not always an easy task and their efforts are greatly appreciated!

Also appreciated is the cooperation of key officials within the Women's Directorates and Departments of Education in each participating province and territory. They acted as the initial contacts for the distribution of the Data Forms and, through their efforts, we have been able to collect data about interesting programs across Canada. There were many others involved as 'couriers', receiving copies of the Data Forms and passing them along to more appropriate individuals. Many of these remain unknown to us but we are thankful for the work they did on our behalf.

This version of EXPANDING CHOICES is a pioneering effort. There are other programs worthy of inclusion but for a variety of reasons have been missed in this first edition. We apologize to the developers and implementers of those programs and extend an invitation to contribute to an updated version. Information about contributions to the next edition follows.

The information presented in this document is both informative and stimulating. The ultimate goal is not only to increase the awareness of educators about the wide range of programs currently being implemented across Canada but also to generate more ideas and programs, all aiming to increase the participation of girls and young women in math and science.

INVITATION TO CONTRIBUTE

Although many interesting programs are included in this first edition of EXPANDING CHOICES, many other programs and activities have undoubtedly been missed. As well, it is possible that errors have been made in the entry and cross checking of this original data. In addition, some of these programs may now need to be updated. To provide for these gaps and errors, an invitation is extended to both previous and new contributors to submit information that can be used in an updated edition. Based on what was learned in the compilation of this first edition, some of the questions used for the collection of the original data have been revised to better accommodate program information. Contributors are invited to respond to the questions and send the information to:

The Nova Scotia Women's Directorate
7th Floor, 5151 Terminal Road
P.O. Box 486
Halifax, N.S.
B3J 2R7
Phone: (902) 424-5820 Fax: (902) 424-0638

With the addition of new programs and the updating of existing ones, ongoing revisions of EXPANDING CHOICES will result in extensive and up-to-date information about math and science programs for girls and women across Canada.

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EXPANDING CHOICES
Math & Science Programs for Girls and Women

Questions for Contributors

1. Name of Program

2. Is this program included in the first edition of Expanding Choices?
If so, what is its code? (if possible)

3. District or institution in which the program has been implemented.

4. Brief description (intended audience, number of participants, program goals, highlights, duration, approach, outcomes, and other relevant information)

5. What features of the program are intended to improve the performance or increase the retention of girls and young women in science and mathematics?

6. What resource materials (print and A/V) were most useful in planning and implementing the program? Please give full references of up to 3 or 4 of the most useful, including price and acquisition information if possible.

7. Have any materials been produced as an outcome of this activity? If so, are they available to others? Please give brief descriptions and relevant acquisition information.

8. To your knowledge, has an evaluation (formal or informal) or review of the program been conducted? Has there been any media coverage? Please supply a brief description and relevant information, if possible. Is a copy of the evaluation available? From whom?

9. We require a contact person to be named to whom requests for further information could be forwarded?
Will you be that person? Yes ___ No ___
If not, can you suggest another contact person?

Name _____
Address _____
_____
_____
Telephone: _____ Fax: _____

10. We welcome any comments or suggestion you may have about content and format of the first edition of EXPANDING CHOICES. Send your remarks to:

The Nova Scotia Women's Directorate
7th Floor, 5151 Terminal Road
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EXPANDING CHOICES

Introduction

USER'S GUIDE

EXPANDING CHOICES is intended for use by educators and is presented in a format which provides easy access to information most relevant to their needs. The Introduction contains an explanation of how the program data were collected, compiled and analyzed. Data are then presented in Part A and Part B. Part A contains a brief description of each program, grouped in four categories - Schools, Post Secondary, Community Based, or Other Resources. Each program is given a code consisting of two letters, representing the province or territory of origin and/or implementation, and a number. Part B contains more details about each program, presented in alphabetical order of the province or region of origin (i.e. the code).

EXPANDING CHOICES can be used most efficiently in one of two ways. By scanning through Part A: Program Descriptions, you can get enough information about each program to select the ones for which you would like additional details. By using the code given, you can find additional information in Part B: Program Details. In this section, the programs are presented in alphabetical order of the code and then numerical order within each code. In this section, you will find details about each program including the name, address and phone number of a contact person from whom you can get further information.

Further explanation of the codes and categories may be useful.

Schools	Programs or activities in which the intended audience is students within the public school system, regardless of grade level and regardless of the developer (many were designed and developed by universities). The intended grade level is given in parentheses to provide further guidance if needed.
Post Secondary	Programs aimed at learners outside the school system, in universities, community colleges or adult education programs.
Community Based	Programs involving groups or agencies outside the structured education system but who offer relevant programs to girls (the most common example being the Girl Guides of Canada).
Other Resources	Entries which give information about useful resource materials rather than describe programs or activities.

The codes represent the province or territory from which the program data was submitted. However, some programs are available on a regional or national basis rather than just within provincial or territorial jurisdictions. These have also been coded.

AB	Alberta	NS	Nova Scotia
AT	Atlantic Provinces	NW	Northwest Territories
BC	British Columbia	ON	Ontario
CN	Canada-Nationwide	PE	Prince Edward Island
MN	Manitoba	SK	Saskatchewan
NB	New Brunswick	YK	Yukon Territory
NF	Newfoundland & Labrador		

As a short-cut, if you know already that you are interested mainly in Post Secondary programs, for example, you can immediately go to that section of Part A: Program Descriptions, find the relevant codes and proceed to Part B: Program Details. Alternatively, if you are interested only in information about programs in Manitoba, for example, you can immediately go to the MN (Manitoba) section of Part B: Program Details.

BACKGROUND

In the fall of 1991, the Nova Scotia Women's Directorate accepted the challenge and responsibility of developing a national inventory of programs designed to teach science and mathematics to girls and young women. The objectives of the project were:

- to produce an annotated inventory of programs and associated resource materials for the science and mathematics education of girls and young women;
- to ensure that Canadian jurisdictions, institutions and relevant professional bodies have an opportunity to contribute to the inventory; and
- to ensure that the inventory can be readily updated.

EXPANDING CHOICES: Math and Science Programs for Girls and Women is the result of that challenge. The problem which it addresses is well known: a low percentage of young women choose to pursue studies in science and math although science and technology continue to dominate change and to drive social and economic trends. Students excluded from the study of science, math and technology are therefore effectively excluded from the structures and processes by which critical social, economic and political decisions are made. There are obvious consequences for employment and the future workforce. There are also wider implications, involving the ends to which science and technology will be directed and how public priorities will be determined.

Female students have consistently demonstrated they do not hold a personal or world view which connects them to the study of science, or to careers in science. Female students are not convinced that the content, skills or impact of the sciences have any relevance to their present lives. Various studies, both Canadian and international, have reported inequalities in science and math education and question the preparedness of young women for their future roles in society.

The problem is not one that has been created solely by the education system; the forces which influence young women's attitudes towards science and math are social, environmental, political and economic. Because the problem is both complex and multi-faceted, so also are the solutions. To promote and encourage positive attitudes, a variety of programs and activities for girls and young women at all levels of education are needed . As an educational tool providing information about existing programs, EXPANDING CHOICES: Math and Science Programs for Girls and Women becomes part of the solution. It is not a bibliography of resource materials or policy statements; it does not duplicate existing lists. Rather, it provides information about education programs and activities which have a direct impact on girls and young women in science and math.

DATA COLLECTION AND COMPILATION

The Nova Scotia Women's Directorate hired the services of Armour and Associates to assume responsibility for the collection and compilation of the necessary data. Letters were initially sent to the Women's Directorates and the Department or Ministry of Education in each province and territory, and to Status of Women Canada requesting a list of potential contacts, people who would be able to supply the information needed for the inventory. These letters resulted in Data Forms being sent to approximately 135 individuals across Canada. The multiplier effect is unknown, but it is clear that many of the initial contacts in turn duplicated the Data Forms for further distribution.

Some contributors were at first confused about the intent of the data collection, the categories, and what the final product would be. Numerous phone calls were made and fax lines were humming across the country! Eventually, a relatively efficient process evolved. All provincial and territorial jurisdictions, with the exception of Quebec, have participated by contributing program information. With perseverance and fine-tuning, the effort on behalf of many people has resulted in this edition of EXPANDING CHOICES, which contains 92 entries.

Although it was stated at the outset that this was not intended to be a bibliography of resource materials, some entries were received that seem to fit more readily into a 'resources' category. Many of these are new and obviously relevant to the topic; so as not to lose them, a category was created - Other Resources. There were a few contributions that gave information about gender equity policies and programs of various provincial jurisdictions. These are included only if they have programs for teachers or students that specifically relate to the issue of girls and women in science and math. Also, information was contributed about programs that involve both males and females. Although these appear to be exciting and innovative programs, only those which have an obvious and significant component dealing with girls or women in science are included here.

For ease of information retrieval, it was always planned to present the collected data in categories or groups. As the data was received, however, it became evident that some adjustments to the originally designed format were needed. In the end, the categories most relevant to the data collected, rather than those of the original plan, were used.

The programs seemed to group themselves on the basis of the intended audience. Most programs, but not all, were designed for students in the school systems across the country. These have been placed, appropriately, in a 'Schools' category. There was a short-lived attempt to further group these programs on an elementary/junior high/senior high basis. That attempt was quickly abandoned since many programs crossed these boundaries, and because these groupings are not uniformly applied across the country. However, grade levels have been indicated on each program. These should be used as rough guides only since many programs can be easily adapted for various grade levels. Also, some program information did not indicate specific grade levels and in those cases interpretations have been made.

Several programs are obviously not designed for schools. Rather they are intended for students attending universities or community colleges. Also, information was received about a few programs which are aimed at women who are attempting re-entry into the labour force in trades and technology. Data about these programs as well as university and college programs are entered as 'Post Secondary'.

In addition, information was received about programs that, although the intended audience is mostly school-age girls and young women, are designed and implemented by agencies outside the school system. Most notable among these are the programs of the Girl Guides of Canada. These have been included in a category called 'Community Based'.

As explained earlier, some entries refer to resource materials rather than programs or activities. They have been labelled 'Other Resources'. In summary, the four categories that seem most appropriate for the data collected are 'Schools', 'Post Secondary', 'Community Based', and 'Other Resources'.

The 92 programs included in EXPANDING CHOICES are presented twice. Part A: Program Descriptions contains only brief descriptions of each program, organized in the four categories, and each with an assigned code. Part B: Program Details presents additional information about each program, presented alphabetically by the assigned code. It is important to note that no assessment or evaluation of the programs has been done by the producers of EXPANDING CHOICES. Some editing of the information submitted has been done for the purposes of brevity and consistency. Occasionally, Data Forms were returned uncompleted but with lots of attached program materials, outlines and media reports. It was then necessary to extract the relevant information and hopefully this has been done to the satisfaction of the contributors.

RESULTS

Since limited information about each program was requested and received, it is not appropriate nor legitimate to present an analysis of the data. At this stage, only 'impressions' will be given. First of all, it is evident that there are many interesting, innovative and exciting programs and activities in science and math education of girls and young women. This first attempt at compiling a directory of these programs netted 92 entries; there are many more out there.

In addition, there are many variations in programming. For example, many programs are intended for girls only, others involve both genders but contain a significant component for or about girls and women in science and math. Sometimes the girls are separated from the boys, other times they are kept together. Some programs are intended for use in classroom settings, others are in outdoor or residential settings. Hands-on activities, mentoring, job shadowing, group discussions, special luncheons and dinners, workshops and seminars are all well represented in this collection. Some are designed for an hour, some for half a day, a full day or several days. There is no shortage of variation!

One area of concern is with the number of programs that appear to be offered only once or twice and are then dropped, perhaps intended to be picked up by another jurisdiction but often are not. There are a number of reasons for this (lack of funds and changing priorities, for example) but the result is a lack of continuity for the girls. This relates to the issue of program evaluation which also raises a few concerns. Unfortunately, from the data presented in EXPANDING CHOICES, it is not possible to determine the impact of the programs on the intended audiences. Given that this document is not intended to examine the methodologies or outcomes of the evaluations used, it can still be noted that the evaluation component of many programs appears to be lacking. Many programs reported that no evaluation has been conducted; others reported that only 'participant response' forms were completed. Undoubtedly, one of the reasons for this is a corresponding lack of financial resources. Funders are often much more interested in supporting the high profile 'bells and whistles' component of a program than the less-than-exciting evaluation component. If this continues to be the case, the result will be a large number of isolated programs, with limited continuity and even fewer connections made between objectives and outcomes.

In summary, a few recommendations are offered. These acknowledge that there are a large number of programs or activities being implemented but the impact on the attitudes and self esteem of the audience is, in most cases, unknown.

- The compilation of a directory such as EXPANDING CHOICES: Math and Science Programs for Girls and Women should be an on-going activity, with up-dated versions produced and distributed on a regular basis.

- Program developers, designers and funders should be encouraged to include comprehensive evaluation components in the program design.

- Evaluation strategies should involve plans for tracking the students over a period of several years, through the completion of their formal education and into career decisions.

- Detailed reports on evaluation strategies and outcomes should be collected, compiled and made available for distribution to program developers.

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EXPANDING CHOICE

PART A

Program Description

Part A - Program Descriptions

This section presents the name, description and code for each program. They have been grouped into four categories:

Schools Programs or activities in which the intended audience is students within the public school system, regardless of grade level and regardless of the developer (many were designed and developed by universities). The intended grade level is given in parentheses to provide further guidance if needed. Programs are presented in the order of intended grade level, from elementary to high school with multi-levelled programs at the end.

Post Secondary Programs aimed at learners outside the school system, in universities, community colleges or adult education programs.

Community Based Programs involving groups or agencies outside the structured education system but who offer relevant programs to girls (the most common example being the Girl Guides of Canada).

Other Resources Entries which give information about useful resource materials rather than describe programs or activities.

AB	Alberta	NS	Nova Scotia
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BC	British Columbia	ON	Ontario
CN	Canada-Nationwide	PE	Prince Edward Island
MN	Manitoba	SK	Saskatchewan
NB	New Brunswick	YK	Yukon Territory
NF	Newfoundland & Labrador		

Using the code, you can find more details about each program in Part B.

PROGRAM DESCRIPTIONS: SCHOOLS

	DESCRIPTION	CODE
Engineering Education Project (K-6)	The Engineering Education Project seeks to accomplish its goals by involving children, teachers, and professional engineers in a participatory program of activities and workshops which provide opportunities for children and teachers to discover that engineering can be fun. The workshops are built upon an active learning approach where participants engage in hands-on activities, and then discuss or debrief their learnings. The program involves problem solving and the application of science concepts and engineering principles.	BC7
Elementary Science Teachers Workshops (K-6)	A series of seven workshops for female elementary science teachers were held in 1986 and 1987. About 22 teachers per session met for an evening and dinner with demonstrations, handouts, and activities. These were designed to give them knowledge and confidence about the earth sciences, biology, and the environment and to learn what resources were available to them in the BC region.	BC11
Conférence à 50 enseignant(e)s et responsables de l'enseignement des sciences à l'élémentaire. (K -6)	Souper-causerie avec Madame Monique Frize où étaient invités des ministres, des éducateurs, des enseignant(e)s, des conseillers en pédagogie. Tous les districts étaient représentés. Le tout se déroulait dans le cadre d'un symposium des Sciences et de la Technologie. Ce projet fut fait en octobre 1991.	NB1
Science Quest (K-6)	Science Quest, a summer camp on engineering for elementary school children,was devised, developed, financed and operated by the Engineering Society in 1988. It involves an equal number of boys and girls to ensure that girls are encouraged in the sciences, and most of the instructors and all of the Directors have been women engineering students. Similar camps have begun to appear on campuses throughout Canada.	ON17
Girls in Science (4-6)	Five half-day workshops of activities are designed to build young girls' (grades 4, 5 & 6) confidence in their ability to do math and science.	BC10

Gender Equity in Science Project (4-7)	The objectives of the project are: • to develop a unit or sequence of units for grades 4 through 7 about "Scientists at Work" which redefine the roles of women in a multitude of science-related careers; • to develop teacher support materials which provide strategies for eliminating gender bias in science education; • to incorporate ideas and activities, wherever practical, which consciously promote gender equity. The expected completion date is July 1992.	BC17
Symposium des Sciences et de la Technologie (4-8)	Ce symposium sera axé sur des pratiques pédagogiques qui encouragent les filles à poursuivre et à performer en sciences et en mathématiques. Le but sera de sensibiliser les enseignant(e)s aux approches pédagogiques non-existes. Projet pour l'automne 1992.	NB2
Science Venture (5-8)	Seven one-week summer science camps are run by the Engineering Students' Society at the University of Victoria, for students entering grades 5 to 8. This program is designed to stimulate interest in, while having fun with, science and engineering.	BC1
Manitoba Technology Initiative (5-8)	The Manitoba Technology Initiative is in the final phases of developing a prototype industry visitation and science/technology awareness day for about 150 grade 5 to grade 8 teachers in one of Winnipeg's school divisions for November 1992. The events of the day will be evaluated to evolve a city-wide program for 1993.	MN7
Careers and Choices (6)	Sixty grade 6 girls from the elementary schools in Grey County attend this one-day program which uses a "fun" approach to provide a series of games (including "Pictionary" and "Name that Trade") as well as role models and demonstrations to emphasize the need for math and science. The goal is to make girls aware of the necessity of long-term career planning and to realize the wide variety of non-traditional career opportunities available to them.	ON7

Girls Grow Up - Alternative Careers Conference (7)	This is a two-day hands-on workshop which takes place in the Science and Technology Department at Cambrian College. The workshop is sponsored by the Women Teachers' Federation of Ontario, the Sudbury Board of Education, and Cambrian College. Approximately 100 girls at the Grade 7 level from all the public schools in the area are exposed to various programs in chemistry, geology, computer drafting, civil engineering, etc. The objective is to encourage girls to continue pursuing math and science and to introduce them to a variety of non-traditional careers.	ON8
Égalité des sexes en sciences de la nature I (7-8)	L'activité s'adressait aux enseignantes et aux enseignants de sciences septième et huitième années ainsi qu'aux personnes responsables de l'enseignement des sciences au niveau des districts scolaires. Environ quatre-vingts personnes ont profité de cette activité à chacun des niveaux. L'activité s'est déroulée dans le cadre des activités de formation lors de l'implantation des programmes de sciences et était d'une durée de trois heures. En septième année, le sujet de l'égalité des sexes en sciences de la nature a fait l'objet d'une discussion entre les participants. On y a abordé les divers types de comportements de l'enseignante ou de l'enseignant qui peuvent influer sur l'image des sciences. En huitième année, nous nous sommes servi d'une vidéocassette pour réfléchir sur les divers comportements de l'enseignante ou de l'enseignant.	NB4
Horizons Conference (7-8)	Horizons is an annual career conference for 500 female students in grades 7 & 8. It provides an opportunity to appreciate (1) the importance of mathematics, science, computer education and technical studies; 2) the role that math and science play in everyday life; and 3) math and science careers today and in the future.	ON2
Spotlight on Girls in Science & Technology (7-8)	A one-day workshop wherein 3-4 grade 7 and 8 girls from each elementary school meet and talk with women working in a variety of science and technological careers. They discuss plans for their future and do some hands on science related to these careers.	ON13

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Girls Exploring Technology (7-8)	Three 5-day summer camps were held at the Wascana Campus of The Saskatchewan Institute of Applied Science and Technology, with grade 7 - 8 students at each camp. The students participated in hands-on activities such as working with computers and designing and constructing experimental machines. They also met women who have successfully pursued non-traditional occupations such as construction and engineering, visited the Saskatchewan Science Centre and toured a construction site.	SK1
Options Unlimited (7-9)	A role modelling program has been designed to bring approximately 170 grade 7 - 9 girls and boys together with women who are in occupations in which women are under-represented. A guide was produced to assist the role models in preparing for their interaction; two Careers Awareness conferences were developed; and a kit and bibliography were created for teachers.	BC15
Girls Inventors Workshop (7-9)	Since 1990, a one-day inventing workshop has been organized for about 70 adolescent girls representing all junior and senior high schools in Halifax to fulfill the following goals: (1) to provide an opportunity for young women to develop confidence, through hands-on experience; (2) to reinforce the idea that math, sciences and technology can be fun and have practical relevance; (3) to help girls realize that women can be creative in every field of endeavor; (4) to provide role models of women inventors; (5) to help young women begin to explore their own gender-related stereotypes and how those stereotypes might impact their decision-making and, lastly, (6) to give young women some insight into the lifestyle of contemporary women inventors.	NS2
FITT (Futures in Transportation Technology) (7-12)	FITT is a series of products, activities and resources designed to address the institutional factors that result in a lack of interest in applied science careers, particularly among young women. It takes a systemic, holistic approach, addressing informational, motivational and role-modeling "gaps" in applied science career-awareness with an emphasis on engineering and engineering technology.	BC14
Programme cadre - Sciences de la nature 7e à 12e années (7-12)	Le programme cadre donne les orientations en sciences dans les écoles secondaires. Une partie de ce programme vise l'égalité des sexes dans les cours de sciences. Elle souligne entre autres, les facteurs qui influent sur l'image stéréotype des sciences. On encourage les intervenants en salle de classe de faire preuve de vigilance à cet effet et on y souligne des stratégies pédagogiques à adopter pour supprimer l'image sexiste des sciences.	NB3

Operation Minerva (8)	This is a two-day program for grade 8 girls which includes a day of job shadowing with over 100 mentors (young women engineers, geologists, dentists, veterinarians, optometrists, researchers) and a day-long conference of workshops, hands-on activities in biomechanics, criminology, microbiology, structure & design (bridge building), wall climbing and the physics of musical instruments.	AB5
Engineering Awareness Program (8)	To introduce grade 8 students to engineering (mining and general and extractive metallurgy), students attend the School of Engineering, Laurentian University, for one day and participate in eight labs. Girls are separated from boys; engineering students are employed as instructors; lab classes are geared to the grade 8 level and deal with ratios, concepts and give the students a hands-on experience of engineering. The program started with 200 students the first year, 400 the second year, and up to 1200 this year.	ON4
PEI Women Do Math & Science 1992 Conference (8)	This was a one-day conference which was attended by 175 grade 8 girls and approximately 40 parents. They spent the day on the UPEI campus learning about women presently working in math and science on PEI and in Canada. The girls left tired but well encouraged to consider math and science study options and career opportunities in their own lives. Thirteen professional women representing the twelve fields of accounting, agriculture, architecture, computers, electronics, engineering, food science and technology, forestry, health services, marine environmental science, mathematics and veterinary medicine gave workshops to the girls while the parents participated in workshops designed for them in the areas of guidance counselling, employment opportunities and financial planning. The keynote speaker, a cartoonist and author of children's science books, was enthusiastically received by the students, parents and volunteers alike as she spoke about her own decision to pursue math and science.	PE1
Summer Institute in Science and Math for Girls (1992) (8-9)	A five-day institute for girls entering grade 9 in the four Atlantic provinces. Forty girls who have shown interest and ability in science and math will participate in science, math and technology activities, field trips to work sites, inventing, and entrepreneurship workshops. The goal is to increase the number of young women choosing science, math and technology programs in post-secondary institutions and to increase women's participation in careers related to those fields.	AT1

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Girls Exploring Technology (8-9)	Five one-week day camps for grade 8 and 9 females to provide hands-on technical experience, tours, speakers and films.	ON12
Ms. Infinity - Women Do Math (8-10)	Ms. Infinity is a one-day conference of math and science activities and workshops for 80 - 100 young women in grades 8 - 10 (previously grades 7 - 9). It provides an opportunity for them to meet and spend time with professional women in fields such as engineering, astronomy, trades, archaeology, computer science, environmental chemistry, pure mathematics, medicine, psychology, and to learn about the excellent career possibilities and attractive lifestyles offered by these fields.	YK2
Discover the Possibilities (9-10)	This is an annual, one-day conference (mixture of talks, workshops, and discussions) for 300-400 female grade 9 and 10 high school students, on scientific and technological careers. Parents and teachers are also invited to participate and special workshops are held for them. The goal is to encourage these young women to continue their math/science subjects through grade 12 and to show them what a wide variety of interesting and rewarding careers are open to them in science and technology. 1992 had a major focus on science in native culture and a grant from the B. C. Ministry of Women's Equality enabled 30 native students from across the province to attend.	BC8
Ms. Infinity (9-10)	This is a one-day math science conference for girls in grades 9 and 10. The usual format has 100 girls attending local community colleges in May, with groups of 15 - 20 attending one career workshop, two hands-on science or math workshops, several panel discussions or talks by women working in science and technology.	BC12
Workshop in Physics (9-10)	Developed by York University, this workshop was a residential (4-day) program targetted towards grade 9 & 10 girls. There was a mix of lectures (many with female role models), demonstrations, lab projects and physical exercise designed to stimulate interest in the physical sciences, physics in particular.	ON11

Job-Site Visits (9-10)	Offered to grade 9 and 10 female students and to all math and science teachers and guidance counsellors in secondary schools, this program has had 170 staff and 1400 students involved. The goals are: • to update teachers and counsellors on the ever-changing applications of math and science in the workplace; • to help teachers encourage and motivate students, especially females, to pursue the study of math and science; • to help teachers and counsellors become more effective in career counselling for female students; • to demonstrate to female students that careers goals based on math and science are attainable and rewarding; • to publish curriculum proposals relevant to current developing technologies and occupations; • to promote awareness and understanding of the changing character of women's participation in the work force and society.	ON21
Discovering Choices (9-10)	This is a one-day Math & Science conference for young women in grades 9 - 10. The objectives are to stimulate interest in math & sciences, to provide opportunity to interact with local women working in the fields of math, science and technology and to ensure positive experiences with math and science through hands-on workshops.	NW1
Scientifically Yours (9-13)	Scientifically Yours is a three-day residential workshop designed to encourage young women to continue their studies in the sciences and to pursue careers in science-related fields. The workshop provides an opportunity for approximately 60 female students from local high schools to learn more about science in a university setting. Everyone participates in four of twelve science and math projects, and gets hands-on laboratory and group experience in the process. The event includes a gender stereotyping workshop, field trips and leisure and recreational activities. The workshop is conducted with the assistance of university student mentors and faculty.	ON25

Promoting Women in Science (PROWIS) (10)	Hosted by Wilfrid Laurier University, PROWIS is an annual three day mathematics and science conference for young women. The aim is to acquaint female students in grade 10 with careers and research in science and math through workshops presented by faculty and staff from mathematics, biology, chemistry, physics, computing, geography, psychology and physical education. Each student participates in four 2.5 hr sessions, as well as in group activities and social events to provide more informal opportunities for interaction. The highlight is a banquet during which participants meet and talk with women from the local community whose careers are in math or science-related fields, and a guest speaker discusses issues of interest and concern to young women planning careers in science or math.	ON20
Teaching for Gender Balance - Workshop Module (10-12)	This self-contained activity-based workshop is written for presentation to high school science teachers at inservice sessions and professional development days.	AB3
Discover Engineering (10-12)	Developed by Ryerson Polytechnical Institute, this is a one-week program of engineering related activities involving 20 female students from grades 10 - 12. The objectives include instilling confidence in the students, encouraging them to see themselves as potential engineers and scientists and demonstrating that women can have successful, enjoyable and productive careers in engineering.	ON1
Quantum Leaps: Women Working in Science and Technology (11)	Quantum Leap is an afternoon and early evening workshop for young women in grade 11. Opportunity is provided to meet and talk with women who are pursuing interesting careers in science and technology related fields. The purpose is to underscore and reinforce the notion that there are interesting career opportunities for women and the time to continue with their math and science studies is now.	BC16
Women in Science and Engineering - Student Summer Employment Program (11)	Female Grade 11 students are placed in eight-week research jobs in laboratories of the Faculties of Engineering, Science and Medicine, the Centre for Cold Ocean Resources Engineering and the Institute for Marine Dynamics at two Memorial University campuses. The program includes weekly tours to job sites and participation in social events and panel discussions with women who work in science, engineering and technology.	NF4

Career Mentoring for Women in Science (11-12)	This program is directed at grades 11 and 12 to encourage female students to pursue a career in science by matching students with women working as scientists, engineers and technologists. In 1992, more than 100 girls were matched with 70 volunteer mentors from more than 25 federal, provincial and private-sector agencies	SK2
Non-traditional Co-op Education program (3 year project) (11-13)	Co-op is available to grades 11, 12 & OAC (13) and although focused on young women, is geared for all students. It was first implemented in Sept. '91 and, therefore, few tangible results are available as yet. Work is being done with grades 9 & 10 to expose the students to career options to help prepare them for their co-op opportunities.	ON6
School to Workplace Apprenticeship Program (11-13)	This program is sponsored by the Ministry of Education and the Ministry of Skills Development to enable secondary school students to train as registered apprentices while working towards a high school diploma.	ON28
Innovators & Frontrunners in the Schools (Many Levels K-12)	Professional engineers and scientists (Innovators), as well as Canada Scholars who volunteer to become Frontrunners, visit elementary and secondary schools to talk to students about studies and careers in natural sciences, engineering and technology and about the importance of keeping their options open by retaining math and science. The names and addresses of Innovators and Frontrunners are circulated to schools in their area so that they may be contacted by interested teachers, guidance counsellors, etc.	CN2
Égalité des sexes en sciences de nature II (Many Levels K-12)	L'activité s'adressait aux chefs de secteur des sciences et aux personnes responsables de l'enseignement des sciences au niveau des districts scolaires. Environ vingt-cinq personnes ont profité de cette activité. L'activité s'est déroulée dans le cadre des activités de deux jours lors de l'implantation du programme de physique et de la définition du domaine. Le thème a été discuté pendant une heure. On y a abordé les divers types de comportements de l'enseignante ou de l'enseignant qui peuvent influer sur l'image des sciences.	NB5
Tournois d'échecs avec une catégorie spéciale pour les filles Many Levels K-12)	Depuis 4 ans, différents tournois d'échecs sont tenus à différents niveaux avant de participer à la finale nationale. Durant l'année scolaire 1992-1993, on y inclura une catégorie pour les filles afin d'améliorer la participation de celles-ci. Projet pour 1992 - 1993.	NB6

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Visite de Madame Frize dans les classes (Many Levels K-12)	Une invitation sera de nouveau lancée aux responsables de l'enseignement des sciences et des mathématiques à l'élémentaire de chaque district scolaire afin que le district invite Madame Frize à venir rencontrer les élèves des écoles élémentaires pour promouvoir les mathématiques et les sciences. Activité pour septembre 1992.	NB7
Speaker's Program (Many Levels K-12)	The main audience is primary and secondary school children. However, university, other professionals, such as guidance counsellors and teachers, and the general public may request speakers. The goal is to increase the number of young women in engineering (science and technology). Visits are usually of one hour duration and occasionally on career days.	SK5
Daughters of Invention (Many Levels K-13)	This is a one/two day invention workshop in which girls turn a problem-solving idea into a product. Topics include market research, prototype development, patenting, financing and marketing. Often conducted in the "shop" areas of schools where true "hands-on" manufacturing can be experienced.	CN3
From Dreams to Reality - an invention workshop for students (Many Levels K-13)	Facilitators from the Women Inventors Project (usually inventors) conduct 30 min- 1 hour, hands-on workshops which demonstrate women's roles in Canada's history and encourages the students to come up with their own inventive idea. The workshops can be modified for children from K to 13.	ON3
Open Doors/Pathmakers (Many Levels K-13)	Aimed at students in elementary and secondary schools, the goal is to provide them access with role models pursuing careers in areas non-traditional for their gender, with a particular emphasis on math, science, and technology.	ON10
School Counselling Program - DAWEG - Division for Advancement of Women in Engineering and Geoscience (Many Levels 1-12)	Volunteers are trained in methods of hands-on classroom presentations and non-gender biased language which is intended to draw out the female students who otherwise tend to be more reticent or ignored. Classrooms are visited to inform and enthuse children (in Grades 1 - 12) in science, math and engineering.	BC3
Access Program for Women in Science and Engineering (Many Levels 4-12)	Undergraduate female science and engineering students are hired to visit schools and talk to students from grade 4 - 12 about careers in science and engineering. There is a science road show for the lower grades which emphasizes that science is important in everyday life and fun to do, and a discussion centering on possibilities and requirements of careers for the senior grades. Although the target audience is girls, we speak mostly to mixed groups.	MN3

Stepping Stones **(Many Levels 7-12)**	**Stepping Stones provides approximately 500 occupational role models to young women in junior and senior high school. Through classroom presentations, students have a unique opportunity to meet and interact with women who are successfully pursuing careers considered non-traditional for their gender. The program encourages students, particularly young women, to explore all of their educational and occupational options, and to make a gender-free career choice based on their interests, aptitude, and abilities. The role models share their work experience and careers which range from A (airline pilot) to Z (zoo keeper).**	**AB4**
Encouraging Women in Science, Mathematics & Technology **(Many Levels 7-12)**	**The project involved about 200 grade 7 - 12 science, math and technology teachers in a program consisting of a one-day workshop and a number of follow-up activities. It was jointly organized by Dalhousie University and the Halifax District School Board, to create gender sensitive classrooms and to focus specifically on teaching strategies in Science, Math and Technology which are sensitive to female learning styles. Long-term objectives include making progress in increasing enrolment of girls and young women in science and mathematics classes and in maintaining this participation through university and eventual career choices.**	**NS1**

PROGRAM DESCRIPTIONS: POST SECONDARY

NAME	DESCRIPTION	CODE
Mentoring Program - (DAWEG), Division for Advancement of Women in Engineering and Geoscience and the Association of Professional Engineers and Geoscientists of B.C. (APEGBC)	The program involves professional women engineers, women engineers-in-training, and 3rd & 4th year undergraduate women engineering students. Participants are matched into mentor/protégée by discipline of study/practice, and/or by outside hobbies or interests. The aim is to bridge the gap between university, graduation, E.I.T. status, and professional status. Format involves 2 workshop-style meetings to air problems and share both positive and negative experiences.	BC2
Women in Science and Technology	This program consists of panel discussions, TV broadcasts, video cassettes and print guides for small discussions which complement existing degree programs through the various faculties. They focus on the general public's attitude towards science and technology and encourages families to support young girls' interest in the sciences.	BC5
Project for Women in Engineering	This program involves the female and male Engineering students, Engineering faculty, and Engineering alumni. The goal is to increase the number of women enrolling in Engineering at UBC and to improve the climate for female students. The participants are involved in discussion groups and mentoring programs.	BC6
Women's Studies III: Perspectives from the Natural Sciences	This course is directed to undergraduate students in all disciplines who wish to examine the history of women in science, early education in science & mathematics, underrepresentation of women in science, women & technology, and feminist perspectives on the sciences. A 13 week, 3 credit-hour course, it is taught by women in science and science education.	MN5
Pre-Technology for Women	A means to encourage re-entry women to look at technology as a viable career, the course was designed to be an exploratory program and was used as a bridge to specialized training in a two-year College engineering program or to immediate employment in a technological area where the student utilizes in-house training.	MN6

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Women Interested in Successful Employment Program (WISE)	WISE is a non-profit women's organization which operates a career exploration and personal develop-ment program for women. It can involve 18 - 26 weeks, depending on the needs of the individual. WISE has a math and science demystification unit as well as an exploring trades and technology unit (shop time).	NF3
Visiting Women Scholars	Visiting Women Scholars is a program funded by the Principal to bring women speakers to Queen's to talk to audiences which range from all female to mixed, depending on the speaker and topic. Visitors are asked to spend one or more days to meet students for a lecture, seminar, dinner meeting, etc. The Faculty of Applied Science participates in this program.	ON14
Applied Science Graduate Studies Dinner	An annual dinner sponsored by the Dean of Applied Science at Queen's University to encourage women to pursue graduate work. The target audience is 3rd and 4th year female engineering students. A prominent woman is invited as the after-dinner speaker to serve as a role model for the students. Female engineering graduate students, female applied science professors and the Deans are also invited to serve as role models and to discuss career options with the students.	ON15
Women in Engineering Conference	With the goal of fostering discussions among male and female students on gender related issues to lead to greater understanding, the first Women in Engineering conference was attended by about 150 people in October 1991. The delegates consisted of about 75% female engineering students and 25% male students, female and male faculty, and a few people from industry as well as 10 - 15 female high school students.	ON16
Gender Issues in Engineering and Related Sciences (new course for 1993)	Conceived and developed by a female faculty member, this course will include: •Historical perspectives on the position, role and contributions of women in technology, engineering and related sciences. • Biographies of selected women engineers and scientists. • Contemporary concerns and gender issues in engineering: position of women in the profession, barriers and obstacles, policies.	ON18

Extended Program	The program provides an opportunity for approximately 90 first year students to compensate for difficulties experienced in chemistry, mathematics and physics by making available instruction in these subjects beginning in January at a slower pace than in the normal first year. This requires the addition of an extra term of seven weeks following the regular academic year, during which the student concentrates on completing the year's work in chemistry, mathematics and physics. (Involves $50 registration fee and $150 for the course).	ON19
Extended Level One Carpenter Apprenticeship for Women	This is a 14-week basic carpentry course under the tutelage of a female construction worker and a female carpenter who operates her own home-renovation company. Upon completion of the course, the student will write her level 1 apprenticeship exam. Available to females having a minimum of grade ten education or equivalent, unemployed and eligible to collect unemployment, and those seriously interested in completing an apprenticeship in the carpenter trade.	SK3
SAIT Women in Trades & Technology	This is a support group for students enrolled in programs where the percentage of females is less than half. It provides opportunities to meet with other SAIT students who share similar interests and career goals. Mentoring opportunities are provided by inclusion of graduates of trade & technology programs as members and guest speakers.	AB6

PROGRAM DESCRIPTIONS: COMMUNITY BASED

NAME	DESCRIPTION	CODE
Atlantic 4-H Veterinary Seminar	The program was aimed at 4-H members from the Atlantic provinces. Although participants were male and female between 16 and 20 years of age, the majority was definitely female. There were eight from each of Prince Edward Island, Nova Scotia, New Brunswick and Newfoundland and one from each of Alberta and Saskatchewan. The goal of the program was to introduce 4-H'ers to the diversity of a career in veterinary medicine.	AT2
Camp-In at Science World Girls Guides of Canada, BC Council	Through Friday night/Saturday mornings at Science World, 300 girls and 50 Guiders had the opportunity to meet and learn from 11 women of different science backgrounds and to explore and learn more about Science.	BC4
Women in Science and Technology	This program consists of panel discussions, TV broadcasts, video cassettes and print guides for small discussions which complement existing degree programs through the various faculties. They focus on the general public's attitude towards science and technology and encourage families to support young girls' interest in the sciences.	BC5
Water for Tomorrow	Five Program Goals, and ten areas of program implementation are in the program. The objectives are to inform all members of the Girl Guide organization and the general public about the importance of Canada's natural water resource and to initiate positive actions to help ensure that safe and clean water supplies will be safeguarded for future generations. In B.C., there are 27,370 girls and young women and 7833 adult members. The program is set out to be an on-going part of all levels of programming.	BC9
Partnerships with the Voluntary Sector	This program consists of a package of invention, innovation, and entrepreneurship modules for activity programs with the leaders and trainers of Girl Guides, 4H Clubs and the YWCA. 'Train the trainer' workshops are conducted.	CN4
Canadian Heritage Rivers Monitoring Program (pilot project)	The program (a 1992 pilot) is open to members of Girls Guides of Canada. It is a summer program in which the participants will collect data and record natural climatic, geographic and human heritage "values" which are related to visible changes in the condition of key elements of the ecosystem. It is a cooperative project of the Girl Guides and the Canadian Heritage Rivers Board.	CN6

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Women's Access to Apprenticeship Projects	This program provides outreach activities to clients such as school boards, girls & young women, and employer groups. The goal is to increase the participation of women, employers and unions in non-traditional apprenticeships. It matches employers with prospective employees.	ON9
Water for Tomorrow	Water for Tomorrow is a national program established in partnership with Environment Canada. Through this program, members of Girl Guides of Canada - Guides du Canada develop action steps and participate in activities contributing to the long-term resolution of national environmental problems related to water. For example, specific water conservation activities at home and at camp, visiting and supporting protected resource areas such as parks and wetlands. The objective is to educate members of the organization and the public about the importance of clean water and to take action to help ensure clean water supplies for future generations.	ON27

PROGRAM DESCRIPTIONS: OTHER RESOURCES

NAME	DESCRIPTION	CODE
Choosing Science - Senior High Science Video Project	Choosing Science is a video designed to introduce high school students to dozens of career opportunities in science and technology in Alberta by profiling individuals who have made their careers in this complex field.	AB1
Teaching with a Gender Balance in Senior High (Science Teachers Resource Manual)	This paper presents findings about the participation of women in science careers and as students in science programs at the secondary and post-secondary levels, and suggests ways teachers can encourage more students to pursue further studies and careers in science.	AB2
Learning Resources Evaluation	This document has been prepared by the British Columbia Ministry of Education. It contains the criteria on gender equity and role portrayals of the sexes for use in recommending learning resources that present a more balanced view of gender roles and contributions.	BC13
Rap-O-Matics - Catch the Best of Science and Math Rap-O-Matics: Suivez la cadence des sciences et des mathématiques	Rap-O-Matics is a 12-minute motivational and instructional rap video for students aged 11 to 15, encouraging them, particularly girls, to keep up their math and sciences courses throughout high school. Users include guidance counsellors, math, science and technology teachers, art and English teachers, community organizations, university and business outreach program officers. Available in French and English.	CN1
Interactive Poster Kit	A poster depicting and describing at least 20 successful women inventors, scientists and entrepreneurs; contains a database with info on at least 150 more. Kit will contain "hard copy" handbook, games, puzzles, and a portable exhibit.	CN5
M. Ed. Thesis: Teacher Awareness of Gender Issues in Mathematics, Science and Computer Literacy.	The thesis contains a thorough literature review to provide an understanding of the reasons for female under-representation in science and technology. A survey of teachers in these fields revealed very low awareness of gender issues. While the recommendations within this work provide activities for teachers to evaluate their working environments, its best contribution is more as a sourcebook for teachers seeking to understand the issues.	MN1

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Partners in Skills Development	A Report of the Skills Training Advisory Committee, this document provides recommendations on the best way to develop Manitoba's human resources, including the opportunity to encourage women to seek technical and scientific positions. It investigates the role of government, the private sector, the public school system and community colleges in developing skills of the labour force and stresses the importance of training partnerships to improve the skills of both new and existing workers.	MN2
Ce que les filles devraient savoir (au sujet) des mathématiques et des sciences.	La vidéo, tout en démontrant le manque d'intérêt des filles du secondaire vis-à-vis des sciences et des mathématiques, vise à les encourager à s'y inscrire, les carrières dans ces domaines étant souvent plus intéressantes et plus rémunératrices. Entrevues avec quatre femmes franco-manitobaines qui font carrière dans ces domaines ou s'y préparent. Sujets: Femmes en mathématiques; Femmes dans les sciences. Orientation professionelle pour les femmes.	MN4
Les Mathematiques - Pour Toutes	Traduction du pamphlet ci-inclus. Distribution à tous les élèves de la 4e à la 12e année. Ce projet est prévu pour l'automne 1992.	NB8
L'option sciences - Femmes et filles et sciences	L'activité s'adresse aux élèves de 4e, 5e, 6e, 7e et 8e années. Le dépliant aborde les thèmes suivants: l'importance d'étudier les sciences, le nombre d'hommes et de femmes occupent des postes dans les domaines scientifiques, les facteurs qui influent sur les décisions des filles et les mythes reliés aux carrières scientifiques.	NB9
Poster "Les Maths, ça sert à quoi?"	Ce poster fut réalisé par la Direction Générale de la Condition Féminine et fut expédié à toutes les écoles de la province. Cette activité fut réalisée en avril 1992.	NB10
Wise Choices - Video	A VHS 26-minute Video has been produced by Women in Science and Engineering (WISE) to encourage female high school students to pursue careers in science- and technology-related careers.	NF1
Wise Choices - Posters	A 12-poster series has been produced by Women in Science and Engineering (WISE) to encourage young women to pursue careers in the science and engineering fields.	NF2

Women in Science and Engineering Vols. I - III	The two bilingual volumes already published are statistical profiles of women in science and engineering disciplines in Canadian universities and colleges. The focus is on trends from 1975 -76 to 1989-90 in student enrolments, degree attainment and professors/instructors.	ON5
Career Selector - Science and Technology	With guidance counsellors and female students as the targetted audience, Career Selector is one of a series of booklets to help young women make career choices. This booklet describes approximately 50 occupations in the science and technology fields by providing information in each case about the work, working conditions, training, salary and job prospects. Emphasis is placed on considering a wide range of occupations in order to make informed career decisions.	ON22
Math Poster	• For educators and students, this poster provides information about the long-term employment consequences of dropping math, simultaneously raises awareness of a range of jobs, and stresses the importance of math in keeping options available. It lists 152 fields of activity requiring math and there are 13 jazzy write-overs presenting jobs that seem appealing to teenagers. The poster is a bilingual flip.	ON23
Mathematics, Science & Technology: An Annotated Bibliography	• Background materials and curriculum resources to encourage entry and retention of females in the fields of math/science/technology • Annotated reference list of books, articles, newsletters and curriculum materials; information on distributors and locations of resources centres and libraries included.	ON24
Speakers Directory	Kingston and Area School to Employment (KASE) and Queen's Faculty of Applied Science have developed a speakers directory of volunteer scientists and engineers in the Kingston area who are willing to speak at schools, participate in career days, etc. The directory is being sent to schools K to OAC to offer our services to them. The directory is being coordinated by KASE and Queen's but volunteers come from local industry, hospitals, community college, Queen's, Royal Military College, etc. The Directory has both men and women. If asked, we can provide all women speakers to a school running an all-girls career day, for example.	ON26

Diversifying the Language	A pamphlet entitled "Diversifying the Language" is currently being developed as training on the use of gender-neutral language and examples in the classroom. The target audience is faculty, staff and students in the Faculty of Applied Science at Queen's. It will be distributed to all engineering faculty and will be discussed at department meetings and at the October 6, 1992 Women in Engineering Conference at Queen's.	ON29
You Make the Choice!	This is a booklet on Yukon women in non-traditional occupations, targetted toward Grades 7 - 9 students. It was a Canadian Congress for Learning Opportunities for Women (CCLOW) project with financial assistance of the Yukon Government Community Development Fund.	YK1

EXPANDING CHOICES

PART B

Program Details

Part B - Program Details

The programs are listed here in alphabetical order of the codes. The codes indicate the province, territory or region in which the program is implemented.

Code: AB1	Other Resources
Name:	Choosing Science - Senior High Science Video Project
Location:	Across Alberta
Description:	Choosing Science is a video designed to introduce high school students to the many dozens of career opportunities in science and technology in Alberta by profiling individuals who have made their careers in this complex field.
Features:	This video highlights the careers of two women and two men whose interests and training in science have brought them together to work as a research team at the University of Alberta. Dr. Ellie Prepas, the leader of the project, has a background in math, ecology and zoology. She loves the outdoors, gets excited about using science and technology to change the world, and daily proves that 11 years at university were of practical benefit.
Resource Materials Used:	None given
Resource Materials Produced:	This video is available from: ACCESS NETWORK Media Resource Centre, 295 Midpark Way, S.E. Calgary, Alberta T2X 2A8 Phone: (403)256-1100 (403) 256-6837
Evaluation Reports:	None given
Contact Information:	Stella Shrum, Program Consultant - Chemistry Curriculum Branch, 11160 Jasper Ave. Edmonton, Alberta T5K 0L2 Phone (403) 427-2984 Fax (403) 422-3745

Code: AB2	Other Resources
Name:	Teaching with a Gender Balance in Senior High -Science Teachers Resource Manual
Location:	Across Alberta
Description:	Written for high school science teachers, the purpose of this paper is to present findings about the participation of women in science careers and as students in science programs at the secondary and post-secondary levels, and to suggest ways in which teachers can encourage more students to pursue further studies and careers in science.
Features:	Data is presented about the participation of women in science programs and careers. Suggested approaches for teachers are supported by research.
Resource Materials Used:	List of articles and books available.
Resource Materials Produced:	This paper is included in the draft form of the Senior High Science Teachers Resource Manual, which is available through the Learning Resources Distribution Centre 12360 - 142nd Street, Edmonton, Alberta T5L 4X9 Phone (403) 427-2767 Fax (403) 422-9750
Evaluation Reports:	None given
Contact Information:	Stella Shrum, Program Consultant - Chemistry Curriculum Branch, 11160 Jasper Avenue Edmonton, Alberta T5K 0L2 Phone (403) 427-2984 Fax (403) 422-3745

Code: AB3	Schools: 10-12
Name:	Teaching for Gender Balance - Workshop Module
Location:	Across Alberta
Description:	This self-contained activity-based workshop is written for presentation to high school science teachers at inservice sessions and professional development days.
Features:	Data is presented on the participation of women and girls in science; Opportunities are provided for participants to brainstorm, share ideas and propose ideas for promoting the participation of girls in science.
Resource Materials Used:	List of articles and books available from program.
Resource Materials Produced:	This workshop is contained in a package called "Senior High Science Inservice Modules" available from: Learning Resources Distribution Centre 12360 - 142nd Street, Edmonton, Alberta T5L 4X9 Phone (403) 427-2767 Fax (403) 422-9750
Evaluation Reports:	None given
Contact Information:	Stella Shrum, Program Consultant - Chemistry Curriculum Branch, 11160 Jasper Avenue Edmonton, Alberta T5K 0L2 Phone (403) 427-2984 Fax (403) 422-3745

Code: AB4	Schools: 7-12
Name:	Stepping Stones
Location:	Across Alberta
Description:	Stepping Stones provides approximately 500 occupational role models to young women in junior and senior high school. Through classroom presentations, students have a unique opportunity to meet and interact with women who are successfully pursuing careers considered non-traditional for their gender. The program encourages students, particularly young women, to explore all of their educational and occupational options, and to make a gender-free career choice based on their interests, aptitude, and abilities. The role models share their work experience and careers which range from A (airline pilot) to Z (zoo keeper).
Features:	Stepping Stones role models share their educational background with students, emphasizing the importance of high school math and science courses. Many role models use props as part of their presentation which is especially effective when demonstrating to students how what they are learning in school now can be applied to their career later.
Resource Materials Used:	When the proposal was being written for Stepping Stones in 1987, information was obtained from "Open Doors" (Ontario), "Project Mentor" (Windsor, Ont.), and a role modelling program which at that time was administered by the B. C. Women's Programs.
Resource Materials Produced:	The Alberta Women's Secretariat has produced the following resources to help teachers effectively implement the Stepping Stones program: • a Stepping Stones Teacher's Kit • a selected annotated bibliography of additional resources relevant to non-traditional careers for women • a program brochure • a VHS video "Explore Your Options",which features four Stepping Stones role models, and accompanying Teacher's Guide.
Evaluation Reports:	•Media coverage upon program launching 1988 •The Alberta Women's Secretariat asks teachers for feedback on an on-going basis as well as conducts a telephone survey of junior and senior high schools to determine the usage of Stepping Stones. •We encourage feedback from the role models and produce a Role Model Report Card • 1991-1992 evaluation/year end report currently being written, final copy available by July 1, 1992.
Contact Information:	Provincial Coordinator, Stepping Stones Program Alberta Women's Secretariat, 8th Floor, Kensington Place 10011 - 109th Street, Edmonton, Alberta T5J 3S8 Phone: (403) 422-4927 Fax: (403) 422-1105

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Code: AB5	Schools: 8
Name:	Operation Minerva
Location:	Calgary, Alberta
Description:	Operation Minerva is a two-day program for grade 8 girls which includes a day of job shadowing with over 100 mentors (young women engineers, geologists, dentists, veterinarians, optometrists, researchers) and a day-long conference of workshops, hands-on activities in biomechanics, criminology, microbiology, structure & design (bridge building), wall climbing and the physics of musical instruments.
Features:	•Both mentoring and role-modeling are included. • Girls are connected with women who are active scientists - acquainting girls with the life style of these professionals.
Resource Materials Used:	Conference Handbook for Planners of conferences to encourage young girls to choose science courses and careers. $10.00 (no GST) from Joyce Lauthy (address below)
Resource Materials Produced:	See above.
Evaluation Reports:	Evaluation will be conducted this year for the 4th annual conference. Much media coverage over the years on CFCN - Calgary (TV), CBC (interviews of girls), The Calgary Herald, and the Calgary Sun.
Contact Information:	Joyce Lauthy, Project Director 2728 Crawford Rd., NW Calgary, Alta. T2L 1E1

Code: AB6	Post Secondary
Name:	Women in Trades & Technology
Location:	Southern Alberta Institute of Technology (SAIT) Calgary, Alberta
Description:	This is a support group for students enroled in programs where the percentage of females is less than half. It provides opportunities to meet with other SAIT students who share similar interests and career goals. Mentoring opportunities are provided by inclusion of graduates of trade & technology programs as members and guest speakers.
Features:	Peer support and mentoring are provided. Discussions focus on issues that pertain to women in "non-traditional" occupations, sexual harassment, and "survival skills".
Resource Materials Used:	None given
Resource Materials Produced:	None given
Evaluation Reports:	None given
Contact Information:	Susan MacCulloch SAIT - Counselling Services 1301-16th Ave. NW Calgary, Alta. T2M 0L4 Phone: (403) 284-7023 Fax: (403) 284-7093

Code: AT1	Schools: 8-9
Name:	Summer Institute in Science and Math for Girls (1992)
Location:	Atlantic Provinces
Description:	This is a five-day institute for girls entering grade 9 in the four Atlantic provinces. 40 girls who have shown interest and ability in science and math will participate in field trips to work sites, inventing and entrepreneurship workshops, and science, math and technology activities. The goal is to increase the number of young women choosing science, math and technology programs in post-secondary institutions and to increase women's participation in careers related to those fields.
Features:	The Institute will: • provide an opportunity for young women to have hands-on experience in science, math & technology; • provide an opportunity for young women to interact with female role models and mentors and to be removed temporarily from the societal pressures of a mixed gender setting; • introduce the young women to the skills of inventing and entrepreneurship.
Resource Materials Used:	Operation Minerva (Conference Handbook) 2728 Crawford Rd. N.W. Calgary, Alberta T2L 1E1 An Invention Workshop for Girls (Handbook for Planners) The Women's Inventors Workshop 1 Greenboro Drive Etobicoke, Ontario M9W 1C8
Resource Materials Produced:	A final report will be available in September 1992 through: The Maritime Provinces Education Foundation Suite 1006, 5161 George Street (or P.O.Box 2044) Halifax, N.S. B3S 2Z1
Evaluation Reports:	None given
Contact Information:	Kathy Hagen The Maritime Provinces Education Foundation Suite 1006, 5161 George Street (or P.O.Box 2044) Halifax, N.S. B3S 2Z1

Code: AT2	Community Based
Name:	Atlantic 4-H Veterinary Seminar
Location:	Atlantic Veterinary College University of Prince Edward Island
Description:	The program was aimed at 4-H members from the Atlantic provinces. Although participants were male and female between 16 and 20 years of age, the majority was definitely female. There were eight from each of Prince Edward Island, Nova Scotia, New Brunswick and Newfoundland and one from each of Alberta and Saskatchewan. The goal of the program was to introduce 4-H'ers to the diversity of a career in veterinary medicine.
Features:	All activities included as much hands-on time as possible. Participants were divided into groups and each group experienced a different series of activities related to veterinary medicine. All activities promoted veterinary medicine and the need for scientific studies and expertise.
Resource Materials Used:	Resource materials were produced by the Atlantic Veterinary College and included many college teaching and research materials. A handbook was prepared by 4-H.
Resource Materials Produced:	None given.
Evaluation Reports:	The 4-H coordinator (Sandra Mackinnon, 902-368-4834) did evaluate the program. There was some media coverage.
Contact Information:	Patrick Chan Atlantic Veterinary College 550 University Avenue Charlottetown, P.E.I. C1A 4P3 Phone: (902) 566-0801 Fax: (902) 566-0958

Code: BC1	Schools: 5-8
Name:	Science Venture
Location:	Victoria, B. C. (and area)
Description:	Seven one-week summer science camps are run by the Engineering Students' Society at the University of Victoria, for students in grades 5 to 8. This program is designed to stimulate interest in, while having fun with, science and engineering. The aim is to fill half the positions with female students.
Features:	Two of the main goals of Science Venture are: • to encourage enrolment in science classes in junior and senior high schools by increasing student interest in the sciences at an early age; • to provide female and male role models to the children to dispel the stereotypes society associates with the scientific and engineering fields.
Resource Materials Used:	None given.
Resource Materials Produced:	A handbook is available which encompasses all aspects of the planning and running of a science camp for kids. Copies can be obtained by contacting Science Venture.
Evaluation Reports:	Some media coverage but no evaluation performed outside of minor introspection.
Contact Information:	Science Venture c/o Engineering Students' Society University of Victoria P. O. Box 3055 Victoria, British Columbia V8W 3P6 Phone: (604) 721-8661 Fax: (604) 721-8676

Code: BC2	Post Secondary
Name:	Mentoring Program - DAWEG (Division for Advancement of Women in Engineering and Geoscience) and APEGBC (Association of Professional Engineers and Geoscientists of B.C.)
Location:	Vancouver, B.C. (and suburbs)
Description:	The program involves professional women engineers, women engineers-in-training, and 3rd & 4th year undergraduate women engineering students. Participants are matched into mentor-protégée pairs by discipline of study/practice, and by outside hobbies or interests. The aim is to bridge the gap between university, graduation, E.I.T. status, and professional status. The format involves 2 workshop-style meetings to air problems and share both positive and negative experiences.
Features:	• Networking and a supporting system has developed, especially for the undergraduate students. • Both mentors and protégées have re-evaluated their goals, priorities and dedication toward engineering, and how they view their place in the profession.
Resource Materials Used:	An external consultant was hired to run our orientation meeting and follow-up workshops. Ms. Eileen Herdry, Psychologist 2824 West 5th Avenue, Vancouver V6K 1T6 Phone: (604) 737-8836 Fax: (604) 737-7562
Resource Materials Produced:	An "official" manual or guidebook is planned which will be ready for September 1992. We also have a questionnaire for signup to the program and some informal work sheets.
Evaluation Reports:	Due to the success of the program through DAWEG, the APEGBC has expressed a keen interest in expanding the program for implementation across B.C. While this is not a "formal" evaluation, it does reflect the success of the program. References from members of APEGBC council can be provided by Karen Levine (address below)
Contact Information:	Karen B. Levine 2222 Sasamat Street Vancouver, B.C. V6R 4N7 OR: Sarah Dench Faculty of Applied Science, UBC Phone: (604) 822-6413 Fax: (604) 822-7006

Code: BC3	Schools: Many Levels (1-12)
Name:	School Counselling Program - DAWEG - Division for Advancement of Women in Engineering and Geoscience
Location:	Lower mainland of British Columbia; members have also travelled around the province on special visits.
Description:	This is a program whereby volunteers are trained in methods of hands-on classroom presentations and non-gender biased language which is intended to draw out the female students who otherwise tend to be more reticent or ignored. Classrooms are visited to inform and enthuse children (in Grades 1 - 12) in science, math and engineering.
Features:	•Role models of female engineers are provided. • Presentation techniques & questioning methods are designed to include and draw out female students.
Resource Materials Used:	• free video and documentation from Innovators in the Schools • free classroom kits & posters from the Society of Automotive Engineers • training sessions given by APASE (Association for the Promotion and Advancement of Science Education) ($500 each - 3 hour sessions) • lesson plans produced by APASE ($10 each)
Resource Materials Produced:	Training session documentation available from Glenn Brown at APASE.
Evaluation Reports:	Individual volunteers have been evaluated by teachers for the Scientists in the Schools program. Available from Roger Renner, Coordinator of SIS at (604-687-8414)
Contact Information:	Sheri Reed, P. Eng. 3262 Chaucer Ave. North Vancouver, B. C.

Code: BC4	Community Based
Name:	Camp-In at Science World Girl Guides of Canada - B.C. Council
Location:	British Columbia (mostly from lower Mainland and Vancouver Island but some from Prince George and Kamloops)
Description:	Through Friday night/Saturday mornings at Science World, 300 girls and 50 Guiders each visit have had the opportunity to meet and learn from 11 women of different science backgrounds and to explore and learn more about Science. The program has been used by over 3000 Brownies, 1200 Guides, and 300 Pathfinder and Senior Branches.
Features:	Science World plans the whole program and provides a crest, a midnight snack and a light breakfast ($25.00 per girl)
Resource Materials Used:	None given.
Resource Materials Produced:	None given.
Evaluation Reports:	Science World is always evaluating the program and has many of the evaluations. They also ask for Guider input.
Contact Information:	Susan Wilks, Public Relations Officer Girl Guides of Canada 1462 West 8th Avenue Vancouver, British Columbia V6H 1E1

Code: BC5	Post Secondary & Community Based
Name:	Women in Science and Technology
Location:	University of Victoria
Description:	This program consists of panel discussions, TV broadcasts, video cassettes and print guides for small discussions which complement existing degree programs through the various faculties. They focus on the general public's attitude towards science and technology and encourage families to support young girls' interest in the sciences.
Features:	By using a variety of education formats, the program aims to provide public education. As these programs are developed under the guidance of the Faculties of Arts and Science, Education, Engineering, and Law, they also focus the institution's attention on the topic.
Resource Materials Used:	Materials from the Society for Canadian Women in Science and Technology (SCWIST) 2423 - 515 West Hastings Street, Vancouver V6B 5K3 Rap-0-Matics quiz, a video produced by Industry, Science and Technology Canada, available from Chromavision International Inc., 1172 Rainbow St., Gloucester, Ontario, K1J 6X7
Resource Materials Produced:	A 10-minute videotape "Opening Doors for Girls to Science and Technology " (aimed at parents and grandparents of girls aged 11 - 14) has been produced along with a print guide for discussion leaders
Evaluation Reports:	The above package is being evaluated by 14 independent viewers in various parts of B. C. The Division of University Extension will issue media releases through the University's Public Relations Dept. A description of the package has been placed in the Division's Fall 1992 Calendar and a brochure advertising the program is in print.
Contact Information:	Janet King, Program Assistant Division of University Extension University of Victoria P. O. Box 3030 Victoria, B.C. V8W 3N6 Phone: 604-721-8774

Code: BC6	Post Secondary
Name:	Project for Women in Engineering
Location:	University of British Columbia
Description:	This program involves the female and male Engineering students, Engineering faculty, and Engineering alumni. The goal is to increase the number of women enrolling in Engineering at UBC and to improve the climate for female students. The participants are involved in discussion groups and mentoring programs.
Features:	• small group and one-on-one discussions • pilot mentoring program for female Engineering students in 3rd & 4th years • assessment of similar programs across North America • assessment of current recruiting and support activities of faculty • strengthening of existing links between female engineering students and other women on campus, and links with female professional engineers
Resource Materials Used:	• Program information from universities across North America • Journal of First Year Experience • Center for Freshmen Year Experience (University of South Carolina) • "Chilly Climate" literature from Centre for Women Policy Studies, Suite 508, 2000 P Street NW, Washington, DC 20036 • "The Chilly Climate in the Classroom" video • papers, journals, edited collections and other books relating to the women in science and women in engineering.
Resource Materials Produced:	Two reports have been produced from the project. They are not available for distribution in their present form.
Evaluation Reports:	Qualitative/informal assessment of the project's first year is currently underway, as is planning for the second year. Limited media coverage: campus papers, local CBC radio
Contact Information:	Sarah Dench Project for Women in Engineering Faculty of Applied Science University of British Columbia 2324 Main Mall, Vancouver, B.C. V6T 1Z4

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Code: BC7	Schools: K-6
Name:	Engineering Education Project
Location:	Metro Vancouver, Lower Fraser Valley, Vancouver Island regions and Cariboo-Chilcotin
Description:	The Engineering Education Project seeks to accomplish its goals by involving children, teachers, and professional engineers in a participatory program of activities and workshops which provide opportunities for children and teachers to discover that engineering can be fun. The workshops are built upon an active learning approach where participants engage in hands-on activities, and then discuss or debrief their learnings. The program involves problem solving and the application of science concepts and engineering principles.
Features:	•Introduces girls to a little understood nor appreciated professional undertaking that they tend to view as inappropriate career choice for girls; •Girls who participate in the program view engineering more positively and express a view that engineering is a career they may pursue; •Helps teachers gain familiarity with engineering activities and allows them to investigate their own attitudes; •Introduces professional engineers to teaching and learning strategies that help them to present engineering to children in engaging and challenging ways.
Resource Materials Used:	• Dunn, Susan and Larson, Rob. *Design Technology: Children's Engineering* Farmer Press, Taylor & Francis Inc., Bristol, PA 1990 • James, Albert. *Structures and Forces: Stages 1 and 2.* Macdonald & Co. Ltd, London, 1982. • Johnsey, Robert. *Problem Solving in School Science.* Simon & Schuster, London, 1990. • Salvadori, Mario. *The Art of Construction.* Chicago Review Press, Chicago, 1990. • Zubrowski, Bernie. *Messing Around with Drinking Straw Construction.* Little, Brown and Company, Boston, 1981.
Resource Materials Produced:	Engineering for Children: Paper Airplanes, available from APASE. Engineering for Children: Structures - 60-page teaching manual available to people who participate in APASE Engineering for Children workshops.
Evaluation Reports:	Formal evaluation in the planning stages. Participants (teachers, students and professional engineers) complete evaluations at the end of each workshop. Workshop leaders and APASE staff have made anecdotal records of their observations during a number of workshops.
Contact Information:	Bridget Walshe APASE (Assoc. for the Promotion and Advancement of Science Education) 3466 W. Broadway Vancouver, B.C. V6R 2B3 Phone: 737-2742

Code: BC8	Schools: 9-10
Name:	Discover the Possibilities
Location:	Lower Mainland of B. C.
Description:	This is an annual, one-day conference (mixture of talks, workshops, and discussions) for 300-400 female grade 9 and 10 high school students, on scientific and technological careers, held at Simon Fraser University. Parents and teachers are also invited to participate and special workshops are held for them. The goal is to encourage these young women to continue their math/science subjects through grade 12 and to show them what a wide variety of interesting and rewarding careers are open to them in science and technology. 1992 had a major focus on science in native culture and a grant from the B. C. Ministry of Women's Equality enabled 30 native students from across the province to attend.
Features:	A full day of interactions with female scientists, mathematicians and technologists lets these young women see they can have a place in the scientific community.
Resource Materials Used:	Careers That Count: Opportunities in the Mathematical Sciences. (Association for Women in Mathematics, Box 178, Wellesley College, Wellesley MA 02181) $1.50 each or $1.00 each for 10 or more. The above was distributed to all students. All other resources used were developed at SFU.
Resource Materials Produced:	A 1991 Conference Proceedings was prepared and will be available from the Gender Equity Program, BC Ministry of Education and Ministry Responsible for Multiculturalism and Human Rights. In 1991, a package was produced for leaders of the career workshops. From: J. Sharp, Employment Equity Officer, Simon Fraser University, Burnaby, B.C. V5A 1S6 ($20) T. Bergren (SFU) is currently producing a "how-to" for others planning such a conference.
Evaluation Reports:	Evaluation forms distributed at each conference. Media coverage included articles in SFU publications and an interview on CBC's AM Radio (which was particularly concerned with the native student participation and the workshops on native science).
Contact Information:	Katherine Heinrich, Chair Dept. of Mathematics and Statistics Simon Fraser University Burnaby, B.C. V5A 1S6 Phone (604) 291-3378

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Code: BC9	Community Based
Name:	Water for Tomorrow
Location:	Across Canada (National Water for Tomorrow program coordinator, as well, each province or territory has a WFT program coordinator)
Description:	Five Program Goals, and ten areas of program implementation are in the program. The objectives are to inform all members of the Girl Guide organization and the general public about the importance of Canada's natural water resource and to initiate positive actions to help ensure that safe and clean water supplies will be safeguarded for future generations. In B.C., there are 27,370 girls and young women and 7833 adult members. The program is set out to be an on-going part of all levels of programming.
Features:	By encouraging environmental literacy and scientific education among its only-female members, the Girl Guide organization hopes to promote career development in water sciences.
Resource Materials Used:	"A Primer on Water" and "Water Fact Sheets 1-5", both produced by Environment Canada (free) "Adopt-A-Stream", F.E.E.S.A., Alberta ($25) "S.P.L.A.S.H." - NFB video "Project Wild" - Canadian Wildlife Federation education program "Under the Same Sun" C.I.D.A. materials "Weatherwise", Kids Can. Press
Resource Materials Produced:	Nov.Dec 1990 issue of the Canadian Guider is dedicated to the WFT program. It will be reprinted (cost yet unknown) and will be available at all Guide shops. Units and Activities of the WFT Program are produced for members. Available at Provincial Guide Shops in B.C. ($1.07) Pipeline - B.C. provincial newsletter has WFT columns Girls Program Books - Available at all Guide shops.
Evaluation Reports:	No evaluation has been conducted; members are encouraged to send reports of activities to the B. C. Provincial Coordinator, and some do. Media coverage has occurred, mostly in local papers as many projects are done in communities.
Contact Information:	B. C. Water for Tomorrow Coordinator 1462 West 8th Avenue Vancouver, B. C. V6H 1E1 Phone: (604) 734-4877 (604) 734-5776

Code: BC10	Schools: 4-6
Name:	Girls in Science
Location:	Across British Columbia
Description:	Five half-day workshops of activities are designed to build young girls' (grades 4, 5 & 6) confidence in their ability to do math and science.
Features:	• Female role models, usually university science & engineering students, are used as workshop instructors • Hands on activities are designed to encourage problem solving and to introduce tools and equipment • A take-home finished product is produced in each activity
Resource Materials Used:	None given.
Resource Materials Produced:	"Imagine the Possibilities" - comprehensive instructions about how to put on "Girls in Science", with workshop activities, teachers guide, equipment lists, etc. available from Resource Centre (SCWIST) ($15)
Evaluation Reports:	Attitude questionnaires given pre & post workshops show that the program is very effective in generally empowering the young women. Questionnaire and summary of results available from SCWIST Resource Centre. Lots of media coverage, national TV coverage in 1985.
Contact Information:	SCWIST Resource Centre #2423 - 515 West Hastings St. Vancouver, B. C. V6B 5K3 Phone: (604) 291-5163 Fax: (604) 291-5112

Code: BC11	Schools: K-6
Name:	Elementary Science Teachers Workshops
Location:	Across British Columbia
Description:	A series of seven workshops for female elementary science teachers were held in 1986 and 1987. About 22 teachers per session met for an evening and dinner with demonstrations, handouts and activities. These were designed to give them knowledge and confidence about earth sciences, biology and the environment and to learn what resources were available to them in the B.C. region.
Features:	The program consisted of role modelling by female scientists who were present at every workshop; consciousness raising for female teachers who were not aware of gender issues; and examples of excellence in teaching designed to benefit all students in the classroom.
Resource Materials Used:	None given.
Resource Materials Produced:	A large 3-ring binder and tool kit (magnets, petri dishes, even meal worms) were given to each teacher who attended, but the resource materials have not been put together for other distribution.
Evaluation Reports:	Evaluations were sent to the sponsoring agents. Individual schools have expressed interest in having one-day professional development workshops such as these.
Contact Information:	SCWIST Resource Centre #2423 - 515 West Hastings St. Vancouver, B. C. V6B 5K3 Phone: (604) 291-5163 Fax: (604) 291-5112

Code: BC12	Schools: 9-10
Name:	Ms. Infinity
Location:	Across British Columbia
Description:	This is a one-day math/science conference for girls in grades 9 and 10. The usual format has 100 girls attending local community colleges in May, with groups of 15 - 20 attending one career workshop, two hands-on science or math workshops, several panel discussions or talks by women working in science and technology.
Features:	• Female role models are used as speakers and workshop leaders • Hands on Science/Math workshops are included • The local community is involved in planning and delivery of conferences
Resource Materials Used:	None used. Personal communication from Women Do Math at SFU.
Resource Materials Produced:	"Ms. Infinity" handbook. A binder for those planning a Ms. Infinity conference ($30). Available from SCWIST Resource Centre
Evaluation Reports:	Each student is asked to complete an evaluation form at the end of each conference. The response was overwhelmingly positive. Evaluation form is available from SCWIST Resource Centre
Contact Information:	SCWIST Resource Centre #2423 - 515 West Hastings St. Vancouver, B. C. V6B 5K3 Phone: (604) 291-5163 Fax: (604) 291-5112

Code: BC13	Other Resources
Name:	Learning Resources Evaluation
Location:	Across British Columbia
Description:	This document has been prepared by the British Columbia Ministry of Education. It contains the criteria on gender equity and role portrayals of the sexes for use in recommending learning resources that present a more balanced view of gender roles and contributions.
Features:	The document helps to ensure that women as well as men are presented as scientists and mathematicians in all resources, and ensures that the contributions of female scientists and mathematicians are acknowledged, providing role models for girls and young women.
Resource Materials Used:	None given
Resource Materials Produced:	None given
Evaluation Reports:	None given
Contact Information:	Cindy Williams, Asst. Director Ministry of Education 878 Viewfield Road Victoria, B.C. V9A 4V1 Phone: (604) 356-2683 Fax: (604) 387-1527

Code: BC14	Schools: 10-12
Name:	FITT (Futures in Transportation Technology)
Location:	Across British Columbia
Description:	FITT is a series of products, activities and resources designed to address the institutional factors that result in a lack of interest in applied science careers, particularly among young women. Designed for secondary schools, it takes a systemic, holistic approach, addressing informational, motivational and role-modeling "gaps" in applied science career awareness with an emphasis on engineering and engineering technology.
Features:	• A Quiz activity is designed to raise student awareness of job market projections, income expectations, labor force demand and socio-economic factors which affect career choice; • Videos for role-modeling in applied science and transportation technology are presented along with informational graphic and guide on engineering careers with background and academic information. • A teachers' guide is available outlining the range of structures within which these materials can be introduced to encourage class use.
Resource Materials Used:	A consultant was hired (M.A. in Education Technology) to design the program professionally.
Resource Materials Produced:	In production are: Quiz - "What Do you Know" Career Path Map & Guide (for Engineering) Will share other materials.
Evaluation Reports:	A formative evaluation has been conducted.
Contact Information:	Virginia Clark, FITT Program Manager Personnel Services Branch, Ministry of Transportation & Highways 940 Blanshard Street Victoria, B.C. V8W 3E6

Code: BC15	Schools: 7-9
Name:	Options Unlimited - A Role Modelling Program
Location:	School District #7, Nelson, B.C.
Description:	A role modelling program has been designed to bring approximately 170 grade 7 - 9 girls and boys together with women who are in occupations in which women are under-represented. A guide was produced to assist the role models in preparing for their interaction; two Careers Awareness conferences were developed and organized; and a kit and a bibliography were created for teachers.
Features:	Girls and young women are encouraged to keep their options open. To do this, they are given facts and statistics and real-life examples of how important it is to take science and math.
Resource Materials Used:	Career Link - Work Opportunities for Women (Powell River Women's Network), 4727 Marine Avenue, Powell River, B.C. V8A 2L2 (604) 485-7958. Open Doors: Be all you can do! (Ontario Women's Directorate; 480 University Avenue, Toronto, Ontario M5G 1V2 (416) 597-4500 Scientists in the Schools Program (Science World; 1455 Quebec Street, Vancouver, B.C. V6E 5E7 (604) 687-8414 Stepping Stones Program (Alberta Women's Secretariat; 10011 - 109th Street Edmonton, Alberta T5J 3S8 (403) 422-4927
Resource Materials Produced:	A Role Model Information Guide and a Teacher Resource Kit is available through the address below.
Evaluation Reports:	Final reports to both of our funders and an ongoing informal evaluation have been prepared. Final reports include an evaluative component. A copy of media coverage is available upon request.
Contact Information:	Options Unlimited c/o West Kootenay Women's Association 507 Hall Street Nelson, B. C. V1L 1Z1 (604) 352-3177

Code: BC16	Schools: 11
Name:	Quantum Leaps: Women Working in Science and Technology
Location:	Vancouver, New Westminster, Coquitlam, Burnaby, Surrey, Maple Ridge, B.C.
Description:	Quantum Leap is an afternoon and early evening workshop for young women in grade 11. Opportunity is provided to meet and talk with women who are pursuing interesting careers in science and technology related fields. The purpose is to underscore and reinforce the notion that there are interesting career opportunities for women and the time to continue with their math and science studies is now.
Features:	• Face to face contact is provided with real world role models with opportunities for mentoring. • There are opportunities for resource people to "tell their stories" and to give something back to the community.
Resource Materials Used:	None given.
Resource Materials Produced:	Videos (raw footage only) available through the Vancouver office of SCWIST.
Evaluation Reports:	Program included in National Agenda of Programs and Activities held during Science and Technology week.
Contact Information:	Cathie Cookson Community Programs & Services Douglas College P.O.Box 2503 New Westminster, B.C. V3L 5B2 (604) 527-5155

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Code: BC17	Schools: 4-7
Activity Name:	Gender Equity in Science Project
Location:	Delta School District, British Columbia
Description:	The objectives of the project are: • to develop a unit or sequence of units for grades 4 through 7 about "Scientists at Work" which redefine the roles of women in a multitude of science-related careers; • to develop teacher support materials which provide strategies for eliminating gender bias in science education; • to incorporate ideas and activities, wherever practical, which conaciously promote gender equity. The expected completion date is July 1992.
Features:	• Development of a kit featuring "Women in Science". • Brings attention to the role of women in science in the past and present. It provides an in-depth look at women in science-related careers from the local community. • Kits with biography/activity cards will be available for grades 3, 5, 7 and 9 students.
Resource Materials Used:	A complete bibliography will be provided with the kit.
Resource Materials Produced:	Kits will contain biographical information and activities related to past and present women in science-related careers. One or more kits to be stored at the Delta Media Library, Attn: Carol Arlitt 785 - 49th Street Delta, Vancouver V4M 2P3
Evaluation Reports:	A pre-post evaluation instrument is being prepared to assess changing attitudes.
Contact Information:	Mr. Kim Young Assistant Superintendent Delta School District 4629 51st Street Delta, B. C. V4K 2V9 Phone: (604) 946-4101 Fax: (604) 946-3910

Code: CN1	Other Resources
Name:	Rap-O-Matics: Catch the Beat of Science and Math Rap-O-Matics: Suivez la cadence des sciences et des mathématiques
Location:	Canada - Nationwide
Description:	Rap-O-Matics is a 12-minute motivational and instructional rap video for students aged 11 to 15. It encourages them, particularly girls, to continue their math and science courses throughout high school. Users include guidance counsellors, math, science and technology teachers, art and English teachers, community organizations, university and business outreach program officers. Available in French and English.
Features:	A facilitator's guide is included which suggests ways to use the video effectively.
Resource Materials Used:	None given
Resource Materials Produced:	Video and guide, produced in both official languages, can be purchased for $14.95 plus tax from distributor: Chromavision International 1172 Rainbow Street Ottawa, Ontario K1J 6X7 (613) 748-5335
Evaluation Reports:	None given
Contact Information:	Deirdre Gillieson/Elinor Bradley Science and Technology Sector Industry, Science and Technology Canada 235 Queen Street, 8th Floor West Ottawa, Ontario K1A 0H5 Phone: (613) 990-7228 Fax: (613) 991-0363

Code: CN2	Schools: K-12
Name:	Innovators and Frontrunners in the Schools
Location:	Canada - Nationwide
Description:	Professional engineers and scientists (Innovators), as well as Canada Scholars who volunteer to become Frontrunners, visit elementary and secondary schools to talk to students about studies and careers in natural sciences, engineering and technology and about the importance of keeping their options open by retaining math and science. The names and addresses of Innovators and Frontrunners are circulated to schools in their area so that they may be contacted by interested teachers, guidance counsellors, etc.
Features:	None given
Resource Materials Used:	None given
Resource Materials Produced:	The Innovators and Frontrunners in the Schools video, and its companion "Selling Science to Students" handbook, prepare engineers and scientists for elementary and secondary school visits to encourage students to pursue science and math studies. Both have practical tips on effective presentations and suggested classroom demonstrations.
Evaluation Reports:	None given
Contact Information:	Donna J. Owens, Network Coordinator - Innovators/Frontrunners Industry, Science and Technology Canada 235 Queen Street, 8th Floor, West Tower Ottawa, Ontario K1A 0H5 Phone: (613) 998-1301 Fax: (613) 941-2811

Code: CN3	Schools: K-12
Name:	Daughters of Invention
Location:	Canada - Nationwide
Description:	Daughters of Invention is a one/two day invention workshop in which girls turn a problem-solving idea into a product. Topics include market research, prototype development, patenting, financing and marketing. It is often conducted in the "shop" areas of schools where true "hands-on" manufacturing can be experienced.
Features:	The start-to-finish development of their own idea, plus the planning involved in "marketing" the finished product, allows girls to realize how much they can accomplish. Provision of positive role models is also helpful.
Resource Materials Used:	None given
Resource Materials Produced:	Daughters of Invention: An Invention Workshop for Girls. What If? - a video depicting the success stories of several women inventors. Inventing Women: Profiles of Women Inventors - more than 20 successful women inventors are profiled. All available from Women Inventors Project (Address below)
Evaluation Reports:	On-going and verbal
Contact Information:	Janet Panabaker, Office Manager Women Inventors Project 1 Greensboro Drive, Suite 302 Etobicoke, Ontario M9W 1C8 Phone: 416-243-0668 Fax: 416-243-0688

Code: CN4	Community Based
Name:	Partnerships with the Voluntary Sector
Location:	Canada - Nationwide
Description:	This program consists of a package of invention, innovation, and entrepreneurship modules for activity programs with the leaders and trainers of Girl Guides, 4H Clubs and the YWCA. 'Train-the-trainer' workshops are conducted.
Features:	Through role models, positive ("fun") and creative activities, and by being given the chance to create and develop their own invention, girls and young women are shown that they, too, can be innovatively, scientifically, and/or technologically creative.
Resource Materials Used:	see below
Resource Materials Produced:	Daughters of Invention: An Invention Workshop for Girls - a handbook for planners developing day-long or longer invention workshops for girls From Idea to Invention: Course Materials for Teaching Invention and Innovation - a handbook for teachers which can be used for developing small units or entire program or course. Both available from: Women Inventors Project 1 Greensboro Drive, Suite 302 Etobicoke, Ontario M9W 1C8
Evaluation Reports:	The terms of the EIC funding for this project require that an outside evaluator be hired. Evaluations are on-going.
Contact Information:	Janet Panabaker, Office Manager Women Inventors Project 1 Greensboro Drive, Suite 302 Etobicoke, Ontario M9W 1C8 Phone: 416-243-0668 Fax: 416-243-0688

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Code: CN5	Other Resources
Name:	Interactive Poster Kit
Location:	Canada - Nationwide
Description:	The Kit consists of a poster depicting and describing at least 20 successful women inventors, scientists and entrepreneurs; it contains a database with information on at least 150 more. The Kit includes "hard copy" handbook, games, puzzles, and a portable exhibit.
Features:	The Kit provides positive role models and heightens interest in pursuing careers in science, technology, and innovation. The computer module, when available, will be designed to encourage young women to develop their computer skills beyond the traditional "keyboard" skills.
Resource Materials Used:	None given
Resource Materials Produced:	Still in development.
Evaluation Reports:	None given
Contact Information:	Janet Panabaker, Office Manager Women Inventors Project 1 Greensboro Drive, Suite 302 Etobicoke, Ontario M9W 1C8 Phone: 416-243-0668 Fax: 416-243-0688

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Name: CN6	Canadian Heritage Rivers Monitoring Program (pilot project)
Location:	Alberta - Athabasca River Ontario - Grand River New Brunswick - St. Croix River
Description:	The program (a 1992 pilot) is open to members of Girls Guides of Canada. It is a summer program in which the participants will collect data and record natural climatic, geographic and human heritage "values" which are related to visible changes in the condition of key elements of the ecosystem. It is a cooperative project of the Girl Guides and the Canadian Heritage Rivers Board.
Features:	The project will give the participants hands-on field experience as well as assist river management agencies in planning for the protection and management of rivers.
Resource Materials Used:	Canadian Heritage Rivers Monitoring Field Manual
Resource Materials Produced:	Technical data that is recorded will benefit the River Agency Managers in future planning and river management. A manual containing information on the physical geography of river systems in Canada, plus technical information on the use of water testing is being produced in draft form for use in the pilot projects in the summer of 1992.
Evaluation Reports:	An evaluation will be done by field investigators and technical staff upon completion of the pilot projects.
Contact Information:	Anne McRuer, Executive Assistant National Youth Services, Girls Guides of Canada 50 Merton Street Toronto, Ontario M4S 1A3

Code: MN1	Other Resources
Name:	M. Ed Thesis: Teacher Awareness of Gender Issues in Mathematics, Sciences and Computer Literacy.
Location:	University of Manitoba
Description:	The thesis contains a thorough literature review to provide an understanding of the reasons for female under-representation in science and technology. A survey of teachers in these fields revealed very low awareness of gender issues. While the recommendations within this work provide activities for teachers to evaluate their working environments, its best contribution is more as a sourcebook for teachers seeking to understand the issues.
Features:	None given
Resource Materials Used:	None given
Resource Materials Produced:	Fidkalo, Wendy (1991). Teacher Awareness of Gender Issues in Mathematics, Science, and Computer Literacy. Unpublished Master Thesis. Univ. of Manitoba. (Faculty of Education)
Evaluation Reports:	None given
Contact Information:	Wendy Fidkalo 27 Southwalk Bay Winnipeg, Manitoba R2N 1M6

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Code: MN2	Other Resources
Name:	Partners in Skills Development
Location:	Across Manitoba
Description:	A Report of the Skills Training Advisory Committee, this document provides recommendations on the best way to develop Manitoba's human resources, including the opportunity to encourage women to seek technical and scientific positions. It investigates the role of government, the private sector, the public school system and community colleges in developing skills of the labour force and stresses the importance of training partnerships to improve the skills of both new and existing workers.
Features:	Contents of the Report include: Women in Science and Non-Traditional Conferences for students, emphasizing the opportunities for young women in non-traditional careers; Women and Career poster series to encourage women to plan for their future; Annual Career Symposium to emphasize non-traditional careers and have female role models present.
Resource Materials Used:	Big Boys Don't Cry - a drama-based program dealing with sexual stereotyping, written for grades 4 - 6. Mathematics - Who Needs It? - a series of brochures for students, parents and teachers, which discusses the importance of adequate math preparation. Available through: The Manitoba Textbook Bureau, 277 Hutchings Street Winnipeg, Manitoba R2X 2R4 Phone: (204) 945-8940
Resource Materials Produced:	Report available through contact below.
Evaluation Reports:	See June 1990 issue of Education Manitoba
Contact Information:	Michael Hartley Manitoba Education and Training 404-1181 Portage Avenue Winnipeg, Manitoba R3G 0T3 Phone: (204) 945-7977 Fax: (204) 945-3042

Code: MN3	Schools: 4-12
Name:	Access Program for Women in Science and Engineering
Location:	Across Manitoba
Description:	Undergraduate female science and engineering students are hired to visit schools and talk to students from grade 4 - 12 about careers in science and engineering. There is a science road show for the lower grades which emphasizes that science is important in everyday life and fun to do, and a discussion centering on possibilities and requirements of careers for the senior grades. Although the target audience is girls, the audience is mostly mixed groups.
Features:	Enthusiastic female science and engineering students not only give information to the school children but also act as role models.
Resource Materials Used:	None given
Resource Materials Produced:	Posters for elementary, junior high and high schools and pamphlets for junior high are distributed free to schools in Manitoba
Evaluation Reports:	An evaluation program is being planned to look at the Access Program and other programs supervised by the Women In Science committee of the Faculty of Science.
Contact Information:	Dr. B. L. Sherriff Dept. of Geological Sciences University of Manitoba Winnipeg, Manitoba R3T 2N2

Code: MN4	Other Resources
Name:	Ce que les filles devraient savoir (au sujet) des mathématiques et des sciences.
Location:	Across Manitoba
Description:	La vidéo, tout en démontrant le manque d'intérêt des filles du secondaire vis-à-vis des sciences et des mathématiques, vise à les encourager à s'y inscrire, les carrières dans ces domaines étant souvent plus intéressantes et plus rémunératrices. Entrevues avec quatre femmes franco-manitobaines qui font carrière dans ces domaines ou s'y préparent. Sujets: Femmes en mathématiques; Femmes dans les sciences. Orientation professionelle pour les femmes.
Features:	None given
Resource Materials Used:	None given
Resource Materials Produced:	Video can be requested from: Monsieur Arsène Huberdeau, Directeur Direction des ressources éducatives françaises S208- 200 avenue de la Cathédrale Saint-Boniface, Manitoba R2H 0H7 Phone (204) 945-8554 Fax: (204) 945-0092
Contact Information:	Florence Girouard conseillère Pédagogique Manitoba Education et Formation Professionnelle 1181 Portage Avenue Winnipeg, Manitoba R3G 0T3 Phone (204) 945-6916 Fax: (204) 945-1625

Code: MN5	Post Secondary
Name:	Women's Studies III: Perspectives from the Natural Sciences
Location:	University of Manitoba
Description:	This course is directed to undergraduate students in all disciplines who wish to examine the history of women in science, early education in science & mathematics, underrepresentation of women in science, women & technology, and feminist perspectives on the sciences. A 13 week, 3 credit-hour course, it is taught by women in science and science education.
Features:	Program provides an environment and resources for critical analysis and discussion of the participation of women in science (historical and contemporary).
Resource Materials Used:	Short bibliography of materials used in the course is available upon request.
Resource Materials Produced:	None given.
Evaluation Reports:	Originally introduced in 1988 as a Special Topics course, the course is now part of the Core Program in Women's Studies.
Contact Information:	Janice G. Dodd, Ph. D. Dept. of Physiology, University of Manitoba 770 Bannatyne Avenue Winnipeg, Manitoba R3E 0W3 Phone: (204) 788-6430 Fax: (204) 774-9517

Code: MN6	Post Secondary
Name:	Pre-Technology for Women
Location:	Red River Community College Winnipeg, Manitoba
Description:	A means to encourage re-entry women to look at technology as a viable career, the course was designed to be an exploratory program and was used as a bridge to specialized training in a two-year College engineering program or to immediate employment in a technological area where the student utilizes in-house training.
Features:	Reading and study skills as well as technical report writing are offered. An important segment of the program is the personal growth component, where the emphasis is on self-awareness, confidence and self-esteem building and the practice of assertive communication. Students set realistic career goals for themselves. Rounding out the program is a three-week hands-on experience in a technological area of the student's choice.
Resource Materials Used:	Videos: • Life and Time of Rosie the Riveter • Head Start: Computer Challenge • I Want to Be an Engineer • Here Today...Where Tomorrow? • Rap-O-Matics - Catch the Beat of Science & Math
Resource Materials Produced:	None Given
Evaluation Reports:	Evaluation not completed. Media coverage: •Article in Education Manitoba (May/June 1990);Pre-Technology for Women Program •Article - Spring Education 1992 - I.E.E.E. Canadian Women in Technology - Where are They?
Contact Information:	Win Torchia, Dept. Head, Women's Programs Red River Community College 2055 Notre Dame Ave. Winnipeg, Manitoba R3H 0J9 Phone: (204) 632-2271 Fax: (204) 632-7834

Code: MN7	Schools: 5-8
Name:	Manitoba Technology Initiative
Location:	Winnipeg, Manitoba
Description:	The Manitoba Technology Initiative is in the final phases of developing a prototype industry visitation and science/technology awareness day for approximately 150 grade 5 to grade 8 teachers in one of Winnipeg's school divisions for November 1992. The events of the day will be evaluated to evolve a city-wide program for 1993.
Features:	• The awareness of primary teachers about the careers and skill requirements in science and technology related to business and industry will be increased. • Tours and workshops will highlight the need to get more girls and young women to pursue the sciences.
Resource Materials Used:	None given
Resource Materials Produced:	Not at this time
Evaluation Reports:	There will be evaluation upon completion as well as media coverage.
Contact Information:	Dr. Tony Knowles, President Red River Community College 2055 Notre Dame Avenue Winnipeg, Manitoba R3H 0J9 (204) 632-2327

Code: NB1	Schools: K-6
Name:	Conférence à 50 enseignant(e)s et responsables de l'enseignement des sciences à l'élémentaire.
Location:	Across New Brunswick (francophone)
Description:	Souper-causerie avec Madame Monique Frize où étaient invités des ministres, des éducateurs, des enseignant(e)s, des conseillers en pédagogie. Tous les districts étaient représentés. Le tout se déroulait dans le cadre d'un symposium des Sciences et de la Technologie. Ce projet fut fait en octobre 1991.
Features:	La conférence donnait un aperçu général de la situation actuelle, l'attitude des filles envers les mathématiques et les sciences. Le but était de sensibiliser l'audience.
Resource Materials Used:	La conférencière avait des notes et des transparences.
Resource Materials Produced:	La conférencière est disponible pour rencontrer toutes les écoles.
Evaluation Reports:	Un reportage fut publié dans les journaux.
Contact Information:	Ms. Nicole Ferguson Science Consultant Department of Education Box 6000 Fredericton, N. B. E3B 5H1 Phone: (506) 453-3678 Fax: (506) 453-3325

Code: NB2	Schools: 4-8
Name:	Symposium des Sciences et de la Technologie.
Location:	Across New Brunswick (francophone districts)
Description:	Ce symposium sera axé sur des pratiques pédagogiques qui encouragent les filles à poursuivre et à performer en sciences et en mathématiques. Le but sera de sensibiliser les enseignant(e)s aux approches pédagogiques non-sexistes. Projet pour l'automne 1992.
Features:	None given.
Resource Materials Used:	None given
Resource Materials Produced:	None given.
Evaluation Reports:	None given
Contact Information:	Ms. Nicole Ferguson Science Consultant Department of Education Box 6000 Fredericton, N. B. E3B 5H1 Phone: (506) 453-3678 Fax: (506) 453-3325

Code: NB3	Schools: 7-12
Name:	Programme cadre - Sciences de la nature 7e à 12e années
Location:	Across New Brunswick (francophone districts)
Description:	Le programme cadre donne les orientations en sciences dans les écoles secondaires. Une partie de ce programme vise l'égalité des sexes dans les cours de sciences. Elle souligne entre autres, les facteurs qui influent sur l'image stéréotype des sciences. On encourage les intervenants en salle de classe de faire preuve de vigilance à cet effet et on y souligne des stratégies pédagogiques à adopter pour supprimer l'image sexiste des sciences.
Features:	Le programme cadre conseille aux enseignantes et aux enseignants de(d'): • promouvoir un travail d'équipe mixte, en s'assurant que les garéons et les filles jouent alors un rôle équivalent; • intéresser les garéons et les filles en citant à la fois des applications de la vie courante qui, traditionnellement, sont associés aux femmes et/ou aux hommes; • ne réserver aucune activité pédagogique, comme les expériences ou les exposés, à un sexe particulier; • ne pas utiliser un langage sexiste; • citer des travaux scientifiques faits aussi bien par des hommes que par des femmes; • encourager les garçons et les filles à poursuivre des études scientifiques: • encourager les garçons et les filles à envisager des carriéres à caractère scientifique.
Resource Materials Used:	None given.
Resource Materials Produced:	None given.
Evaluation Reports:	Aucune évaluation du document n'a encore été faite. Le programme fut implanté cette année. Les médias n'ont pas été convoqués.
Contact Information:	Ms. Nicole Ferguson Science Consultant Department of Education Box 6000 Fredericton, N. B. E3B 5H1 Phone: (506) 453-3678 Fax: (506) 453-3325

Code: NB4	Schools: 7-8
Name:	Égalité des sexes en sciences de la nature (I)
Location:	Across New Brunswick (francophone districts)
Description:	L'activité s'adressait aux enseignantes et aux enseignants de sciences septième et huitième années ainsi qu'aux personnes responsables de l'enseignement des sciences au niveau des districts scolaires. Environ quatre-vingts personnes ont profité de cette activité à chacun des niveaux. L'activité s'est déroulée dans le cadre des activités de formation lors de l'implantation des programmes de sciences et était d'une durée de trois heures. En septième année, le sujet de l'égalité des sexes en sciences de la nature a fait l'objet d'une discussion entre les participants. On y a abordé les divers types de comportements de l'enseignante ou de l'enseignant qui peuvent influer sur l'image des sciences. En huitième année, nous nous sommes servi d'une vidéocassette pour réfléchir sur les divers comportements de l'enseignante ou de l'enseignant.
Features:	Le programme cadre conseille aux enseignantes et aux enseignants de(d'): • promouvoir un travail d'équipe mixte, en s'assurant que les garçons et les filles jouent alors un rôle équivalent; • intéresser les garçons et les filles en citant à la fois des applications de la vie courante qui, traditionnellement, sont associés aux femmes et/ou aux hommes; • ne réserver aucune activité pédagogique, comme les expériences ou les exposés, à un sexe particulier; • ne pas utiliser un langage sexiste; • citer des travaux scientifiques faits aussi bien par des hommes que par des femmes; • encourager les garçons et les filles à poursuivre des études scientifiques: • encourager les garçons et les filles à envisager des carrières à caractère scientifique.
Resource Materials Used:	Pour les ateliers de formation, le programme cadre est la source de référence. Il est disponible auprès des ressources pédagogiques du ministère de l'Éducation du Nouveau-Brunswick. En sciences huitième année, une vidéocassette maison était la source de référence.
Resource Materials Produced:	None given.
Evaluation Reports:	Aucune évaluation relative au sexisme dans les cours de sciences n'a encore été faite. Le programme fut implanté l'an passé n'est pas terminée. Les médias n'ont pas été convoqués.
Contact Information:	Ms. Nicole Ferguson Science Consultant Department of Education Box 6000 Fredericton, N. B. E3B 5H1 Phone: (506) 453-3678 Fax: (506) 453-3325

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Code: NB5	Schools: K -12
Name:	Égalité des sexes en sciences de la nature (II)
Location:	Fredericton, N. B.
Description:	L'activité s'adressait aux chefs de secteur des sciences et aux personnes responsables de l'enseignement des sciences au niveau des districts scolaires. Environ vingt-cinq personnes ont profité de cette activité. L'activité s'est déroulée dans le cadre des activités de deux jours lors de l'implantation du programme de physique et de la définition du domaine. Le thème a été discuté pendant une heure. On y a abordé les divers types de comportements de l'enseignante ou de l'enseignant qui peuvent influer sur l'image des sciences.
Features:	•Le programme cadre conseille aux enseignantes et aux enseignants de(d'): • promouvoir un travail d'équipe mixte, en s'assurant que les garçons et les filles jouent alors un rôle équivalent; • intéresser les garçons et les filles en citant à la fois des applications de la vie courante qui, traditionnellement, sont associés aux femmes et/ou aux hommes; • ne réserver aucune activité pédagogique, comme les expériences ou les exposés, à un sexe particulier; • ne pas utiliser un langage sexiste; • citer des travaux scientifiques faits aussi bien par des hommes que par des femmes; • encourager les garçons et les filles à poursuivre des études scientifiques; • encourager les garçons et les filles à envisager des carrières à caractère scientifique.
Resource Materials Used:	Le programme cadre des sciences au secondaire est disponible aux ressources pédagogiques du ministère de l'Éducation du Nouveau-Brunswick.
Resource Materials Produced:	None given.
Evaluation Reports:	Aucune évaluation relative au sexisme dans les cours de sciences n'a encore été faite. Les médias n'ont pas été convoqués.
Contact Information:	Ms. Nicole Ferguson Science Consultant Department of Education Box 6000 Fredericton, N. B. E3B 5H1 Phone: (506) 453-3678 Fax: (506) 453-3325

Code: NB6	Schools: K -12
Name:	Tournois d'échecs avec une catégorie spéciale pour les filles
Location:	Across New Brunswick (francophone districts)
Description:	Depuis 4 ans, différents tournois d'échecs sont tenus à différents niveaux avant de participer à la finale nationale. Durant l'année scolaire 1992-1993, on y inclura une catégorie pour les filles afin d'améliorer la participation de celles-ci. Projet pour 1992 - 1993.
Features:	Puisque les échecs font partie du programme de mathématiques à l'élémentaire, il faut inciter les filles à participer car nous avons constaté que leur participation est très négligable.
Resource Materials Used:	Tournois d'échecs (jeux d'échecs)
Resource Materials Produced:	None given.
Evaluation Reports:	None given.
Contact Information:	Ms. Nicole Ferguson Science Consultant Department of Education Box 6000 Fredericton, N. B. E3B 5H1 Phone: (506) 453-3678 Fax: (506) 453-3325

Code: NB7	Schools: K -12
Name:	Visite de Madame Frize dans les classes
Location:	Across New Brunswick (francophone districts)
Description:	Une invitation sera de nouveau lancée aux responsables de l'enseignement des sciences et des mathématiques à l'élémentaire de chaque district scolaire afin que le district invite Madame Frize à venir rencontrer les élèves des écoles élémentaires pour promouvoir les mathématiques et les sciences. Activité pour septembre 1992.
Features:	None given.
Resource Materials Used:	None given.
Resource Materials Produced:	None given.
Evaluation Reports:	None given.
Contact Information:	Ms. Nicole Ferguson Science Consultant Department of Education Box 6000 Fredericton, N. B. E3B 5H1 Phone: (506) 453-3678 Fax: (506) 453-3325

Code: NB8	Other Resources
Name:	Les Mathématiques - Pour Toutes.
Location:	Across New Brunswick (francophone)
Description:	Traduction du pamphlet ci-inclus. Distribution à tous les élèves de la 4e à la 12e année. Ce projet est prévu pour l'automne 1992.
Features:	None given.
Resource Materials Used:	None given.
Resource Materials Produced:	None given.
Evaluation Reports:	None given.
Contact Information:	Ms. Nicole Ferguson Science Consultant Department of Education Box 6000 Fredericton, N. B. E3B 5H1 Phone: (506) 453-3678 Fax: (506) 453-3325

Code: NB9	Other Resources
Name:	L'Option Sciences - Femmes et filles et sciences
Location:	Across New Brunswick (Francophone districts)
Description:	L'activité s'adresse aux élèves de 4e, 5e, 6e, 7e et 8e années. Le dépliant aborde les thèmes suivants: l'importance d'étudier les sciences, le nombre d'hommes et de femmes occupant des postes dans les domaines scientifiques, les facteurs qui influent sur les décisions des filles et les mythes reliés aux carrières scientifiques.
Features:	Le dépliant relève les avantages à choisir une carrière scientifique pour la femme. Il souligne aussi les mythes rattachés à une carrière en sciences.
Resource Materials Used:	Le dépliant et l'affiche ont été rendus disponibles aux écoles sans frais par la Direction générale de la condition féminine, C. P. 6000, Fredericton, N. B. E3B 5H1. Le ministère de l'Éducation s'occupe de la distribution.
Resource Materials Produced:	Le dépliant et l'affiche seront seulement envoyés aux écoles pour la rentrée scolaire.
Evaluation Reports:	Suite à l'envoi des documents, une évaluation sera faite auprès des filles relatives à leur perception de l'entreprise scientifique. La documentation relative à cette activité n'est pas encore disponible.
Contact Information:	Ms. Nicole Ferguson Science Consultant Department of Education Box 6000 Fredericton, N. B. E3B 5H1 Phone: (506) 453-3678 Fax: (506) 453-3325

Code: NB10	Other Resources
Name:	Poster "LES MATHS, ça sert à quoi?"
Location:	Across New Brunswick (Francophone districts)
Description:	Ce poster fut réalisé par la Direction Générale de la Condition Féminine et fut expédié à toutes les écoles de la province. Cette activité fut réalisée en avril 1992.
Features:	Ce poster fait une liste exhaustive des professions et carrières reliées aux mathématiques.
Resource Materials Used:	None given.
Resource Materials Produced:	None given.
Evaluation Reports:	None given
Contact Information:	Ms. Nicole Ferguson Science Consultant Department of Education Box 6000 Fredericton, N. B. E3B 5H1 Phone: (506) 453-3678 Fax: (506) 453-3325

Code: NB11	Other Resources
Name:	Examen provincial en mathématiques au mois de septembre 4e année.
Location:	Across New Brunswick (Francophone districts)
Description:	Nous avons comparé les résultats des filles et des garçons. Les filles ont eu une meilleure performance. Cette activité fut faite en septembre 1991.
Features:	None given.
Resource Materials Used:	None given.
Resource Materials Produced:	None given.
Evaluation Reports:	None given
Contact Information:	Ms. Nicole Ferguson Science Consultant Department of Education Box 6000 Fredericton, N. B. E3B 5H1 Phone: (506) 453-3678 Fax: (506) 453-3325

Code: NF1	Other Resources
Name:	Wise Choices (Video)
Location:	Across Newfoundland and Labrador
Description:	A VHS, 26-minute Video has been produced by Women in Science and Engineering (WISE) to encourage female high school students to pursue careers in science- and technology-related careers.
Features:	The video can be used by career education, science, industrial arts and home economics teachers as well as women's groups and the general public.
Resource Materials Used:	None given
Resource Materials Produced:	For preview, rental or purchase, contact: WISE Newfoundland, 114 Empire Avenue, St. John's, Nfld. A1C 3G2
Evaluation Reports:	None given
Contact Information:	WISE Newfoundland, 114 Empire Avenue, St. John's, Nfld. A1C 3G2 Phone (709) 754-1435 Fax: (709) 738-3276

Code: NF2	Other Resources
Name:	Wise Choices (Posters)
Location:	Across Newfoundland and Labrador
Description:	A 12-poster series has been produced by Women in Science and Engineering (WISE) to encourage young women to pursue careers in the science and engineering fields.
Features:	These brightly coloured, eye-catching posters display photographs of actual role models, brief descriptions of their jobs, and information regarding the fields, and the study required to enter them. Eleven of the posters depict both male and female role models in the fields listed, while the twelfth poster is a general composite with only women represented.
Resource Materials Used:	None given
Resource Materials Produced:	For purchase (postage & handling fee - $25) of a set, contact : WISE Newfoundland, 114 Empire Avenue, St. John's, Nfld. A1C 3G2
Evaluation Reports:	None given
Contact Information:	WISE Newfoundland, 114 Empire Avenue, St. John's, Nfld. A1C 3G2 Phone (709) 754-1435 Fax: (709) 738-3276

Code: NF3	Post-Secondary
Name:	Women Interested in Successful Employment Program (WISE)
Location:	St. John's and Central Newfoundland
Description:	WISE is a non-profit women's organization which operates a career exploration and personal development program for women. Most participants are women who are re-entering the labour force. It can involve 18 - 26 weeks, depending on the needs of the individual. WISE has a math and science demystification unit as well as an exploring trades and technology unit (shop time).
Features:	The overall program objective is to increase awareness about a wide variety of occupations and to provide the participants with the information and skills necessary to make a career plan. The program has a high success rate with over 85% of participants either in training or working after the completion of the program.
Resource Materials Used:	Material developed for classroom use comes from various sources. Guest speakers and videos/films are used.
Resource Materials Produced:	The math and science de-mystification component was developed for the WISE curriculum. For further information, contact Helen King (see address below).
Evaluation Reports:	The program is evaluated by an external evaluator. Each group of participants completes a pre-program and post-program questionnaire which are seen only by the evaluator. A copy of a typical evaluation report is available from Helen King (see address below)
Contact Information:	Helen King Provincial Coordinator, WISE 50 Parade Street St. John's, Nfld. A1C 4C7 Phone: (709) 739-1369 Fax: (709) 739- 6506

Code: NF4	Schools: 11
Name:	Women in Science and Engineering Student Summer Employment Program
Location:	Across Newfoundland and Labrador
Description:	Female grade 11 students are placed in eight-week research jobs in laboratories of the Faculties of Engineering, Science and Medicine, the Centre for Cold Ocean Resources Engineering and the Institute for Marine Dynamics at two Memorial University campuses. The program includes hands-on experience, weekly tours to job sites and participation in social events and panel discussions with women who work in science, engineering and technology.
Features:	• Young women gain actual work experience in a field of science or engineering with an increase in their confidence and self-esteem • The experience is often an important factor in study and career selection • Students interact with many female role models and, conversely, have made very positive impressions on male supervisors • The program provides an important opportunity for rural students who may not otherwise have come in contact with these options. As well, students benefit from living in residence and becoming comfortable with the university environment. • The young women act as role models to influence their peers when they return for their final year of high school.
Resource Materials Used:	WISEST (Women in Scholarship, Engineering, Science and Technology) in Alberta. (See M. Armour, Chemistry Dept. Univ. of Alberta, Edmonton, T6G 2G2
Resource Materials Produced:	None available at this time. The Newfoundland and Labrador Chapter of WISE has two other resources available (not directly related to the Summer Employment Program) The "Career-a-Month" series of 12 posters depicting women and men in careers in science and technology with career information ($25) and the 26 min. "WISE Choices" video depicts five women in non-traditional careers ($50).
Evaluation Reports:	Pre-and Post employment evaluations by the students have been administered each year. Bonny Hill presented a paper on the evaluations from the 1990 pilot project at the Australia meeting of "Gender and Science and Technology (GASAT) 1991. Copies available from WISE Newfoundland and Labrador.
Contact Information:	Carolyn J. Emerson WISE Newfoundland and Labrador St. John's, Newfoundland A1B 3X9 Phone: (709) 754-1435 Fax: (709) 738-3276

Code: NS1	Schools: 7-12
Name:	Encouraging Women in Science, Math & Technology
Location:	Halifax, Nova Scotia
Description:	The project involved about 200 grade 7 - 12 Science, Math and Technology teachers in a program consisting of a one-day workshop and a number of follow-up activities. It was jointly organized by Dalhousie University and the Halifax District School Board to create gender sensitive classrooms and to focus specifically on teaching strategies in Science, Math and Technology which are sensitive to female learning styles. Long-term objectives include making progress in increasing enrolment of girls and young women in science and mathematics classes and in maintaining this participation through university and eventual career choices.
Features:	The program focuses on : • Teaching strategies specific to female learning styles; • Interaction between a university and a public school system; • Long-term follow-up; • Encourages teacher involvement in future initiatives.
Resource Materials Used:	Background Materials and Curriculum Materials to Encourage Females Into the Fields of Math, Science and Technology: An Annotated bibliography (Ontario Women's Directorate) Girls into Mathematics (Cambridge University Press, Centre for Math Education) Female Friendly Science (Sue Rosser, Pergamon Press)
Resource Materials Produced:	None given
Evaluation Reports:	None given
Contact Information:	Elinor Nicoll Halifax District School Board Box 320 Halifax, N. S. B3J 2R1 Phone: (902) 421-6474 Fax (902) 423-1618 Dr. Ann Manicom School of Education, Dalhousie University Halifax, N.S. B3H 3J5 Phone: (902) 494-6413

Code: NS2	Schools: 7-9
Activity Name:	Girl Inventors Workshop
Location:	Halifax, Nova Scotia
Description:	Since 1990, a one-day inventing workshop has been organized for about 70 adolescent girls representing all junior and senior high schools in Halifax to fulfill the following goals: (1) to provide an opportunity for young women to develop confidence, through hands-on experience; (2) to reinforce the idea that math, sciences and technology can be fun and have practical relevance; (3) to help girls realize that women can be creative in every field of endeavor; (4) to provide role models of women inventors; (5) to help young women begin to explore their own gender-related stereotypes and how those stereotypes might impact their decision-making and, lastly, (6) to give young women some insight into the lifestyle of contemporary women inventors.
Features:	The concept of women as inventors is totally outside the experience of female adolescents who usually assume that such a person is male, brilliant and eccentric. This workshop challenges this stereotypical image by involving them personally in the inventing process. It is expected that the confidence developed from engaging in design and problem-solving activities with peers will help to dissipate some of the anxiety associated with science and technology activities and thus, girls might be encouraged to continue their coursework in these areas.
Resource Materials Used:	• Women Inventors Project, Box 689 Waterloo, Ontario N2J 4B8 • Daughters of Invention: An Invention Workshop for Girls Handbook for Planners ($10) • Inventing Women: Profiles of Women Inventors ($10) • Women Inventors/1988. Video - interviews with women inventors ($30) • Note: a variety of books, tapes, and software related to creative thinking, inventing, innovation and entrepreneurship is described in a brochure available from: The Canadian Industrial Innovation Centre 156 Columbia Street West, Waterloo, Ontario, N2L 3L3
Resource Materials Produced:	None given.
Evaluation Reports:	The only evaluation of the program has been done by the students at the end of the workshop, using a form adapted from the Women Inventors Project Handbook described above. Extensive media coverage was directed at the program in our second year. Radio interviews with students and newspaper articles were the primary approaches used.
Contact Information:	Elinor Nicoll, Supervisor of Science & Technology Halifax District School Board Box 370 Halifax, Nova Scotia B3J 2R1 Phone: (902) 421-6836 Fax: (902) 423-1618

Code: NW1	Schools: 9-10
Name:	Discovering Choices - a Math & Science Conference for Young Women
Location:	Yellowknife area (including Dettah & Rae-Edzo)
Description:	Discovering Choices is a one-day math & science conference for young women in grades 9 - 10. The objectives are to stimulate interest in math & science, to provide opportunity to interact with local women working in the fields of math, science and technology and to ensure positive experiences with math and science through hands-on workshops.
Features:	Girls are provided with role models and motivation to continue with or expand the science courses they take. They become aware that math and science are necessary for most of the jobs in the workforce.
Resource Materials Used:	None given
Resource Materials Produced:	None given
Evaluation Reports:	None given
Contact Information:	Aileen Najduch Yellowknife Education District No. 1 Box 788, Yellowknife, NWT X1A 2N6

Code: ON1	Schools: 10-12
Name:	Discover Engineering
Location:	Toronto, Ontario
Description:	Devaloped by Ryerson Polytechnical Institute, this is a one-week program of engineering related activities involving 20 female students from grades 10 - 12. The objectives include instilling confidence in the students, encouraging them to see themselves as potential engineers and scientists and demonstrating that women can have successful, enjoyable and productive careers in engineering.
Features:	There are lots of hands-on engineering activities and the instructors are female engineers.
Resource Materials Used:	None given
Resource Materials Produced:	Final reports are available from Ryerson (address below).
Evaluation Reports:	Student evaluation conducted.
Contact Information:	Peter Hiscocks, c/o Electrical Engineering Ryerson Polytechnical Institute 350 Victoria St. Toronto, Ontario M5B 2K3 Phone (416) 979-5000 (416) 979-5052

Code: ON2	Schools: 7-8
Name:	Horizons Conference
Location:	Toronto, Ontario
Description:	Horizons is an annual career conference for 500 female students in grades 7 & 8. It provides an opportunity to appreciate (1) the importance of mathematics, science, computer education and technical studies; 2) the role that math and science play in everyday life; and 3) math and science careers today and in the future.
Features:	This conference is designed to stimulate young women to see careers in which math, science, computer or technological education is a prerequisite. Also, the careers modeled include those that require apprenticeship or community college training as well as university education. They also have an opportunity to hear a young woman currently studying math or science, as well as meet a woman at the end of her pioneering career. In the last two years, Helen Hogg and Ursula Franklin have been honoured guests.
Resource Materials Used:	None given
Resource Materials Produced:	Sample conference programs are available free as long as supplies last from: The Equity Centre, Toronto Board of Education 155 College St., Toronto, Ontario M5T 1P6 (416) 591-8362
Evaluation Reports:	Media coverage has been extensive. Samples are available.
Contact Information:	Myra Novogrodsky, Toronto Board of Education 155 College Street, Toronto, Ont. M5T 1P6

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Code: ON3	Schools: K-13
Name:	From Dreams to Reality - an Invention Workshop for Students
Location:	Across Ontario
Description:	Facilitators from the Women Inventors Project (usually inventors) conduct 30 min. - 1 hour, hands-on workshops which demonstrate women's roles in Canada's history and encourages the students to come up with their own inventive idea. The workshops can be modified for children from K to 13.
Features:	The workshops are fun, encourage creative thinking and discourage the notion that inventors and people with good technological ideas or skills are "male scientists". There are lots of hands-on activities and presentation of positive role models.
Resource Materials Used:	see below
Resource Materials Produced:	Daughters of Invention: An Invention Workshop for Girls - a handbook for planners developing day-long or longer invention workshops for girls From Idea to Invention: Course Materials for Teaching Invention and Innovation - a handbook for teachers which can be used for developing small units or entire program or course. Both available from W. I. P. at 1 Greensboro Drive, Suite 302 Etobicoke, Ontario M9W 1C8
Evaluation Reports:	Evaluations on-going but we do occasionally receive written evaluations.
Contact Information:	Janet Panabaker, Office Manager Women Inventors Project 1 Greensboro Drive, Suite 302 Etobicoke, Ontario M9W 1C8 Phone: 416-243-0668 Fax: 416-243-0688

Code: ON4	Schools: 8
Name:	Engineering Awareness Program
Location:	Sudbury, Ontario
Description:	To introduce grade 8 students to engineering (mining and general and extractive metallurgy), students attend the School of Engineering, Laurentian University, for one day and participate in eight labs. Girls are separated from boys; engineering students are employed as instructors; lab classes are geared to the grade 8 level and deal with ratios, concepts and give the students a hands-on experience of engineering. The program started with 200 students the first year, 400 the second year, and up to 1200 this year.
Features:	The intention is to involve all grade 8 girls prior to their entering high school. By using role models of female engineers, both the boys and the girls are shown that women can be engineers. At least half of the instructors are female engineering students and they lead at least half of the labs.
Resource Materials Used:	Resource material was created "in house" from the undergraduate labs, adapted to suit the grade 8 students.
Resource Materials Produced:	None given
Evaluation Reports:	The program has been evaluated by a School Board Consultant.
Contact Information:	Lionel W. F. Rudd, C.E.T., Sr. Technologist School of Engineering, Laurentian University Ramsey Lake Road, Sudbury, Ontario P3E 2C6 Phone: (705)675-1151, Ext 2256 Fax: (705)673-6532

Code: ON5	Other Resources
Name:	Women in Science and Engineering, Vol. I - III.
Location:	Canada
Description:	The two bilingual volumes already published are statistical profiles of women in science and engineering disciplines in Canadian universities and colleges. The focus is on trends from 1975 -76 to 1989-90 in student enrolments, degree attainment and professors/instructors.
Features:	None given.
Resource Materials Used:	Statistics Canada data
Resource Materials Produced:	Volumes are available through: University Research Policy Science and Technology Sector Industry, Science and Technology Canada 235 Queen Street, 8th Floor Ottawa, Ontario K1A 0H5 Fax: (613) 991- 0363
Evaluation Reports:	None given.
Contact Information:	Deirdre Gillieson/Lyne Leclerc Science and Technology Sector Industry, Science and Technology Canada 235 Queen Street, 8th Floor Ottawa, Ontario K1A 0H5 Phone: (613) 990- 7228 or 993-1453

Code: ON6	Schools: 11-13
Name:	Non Traditional Co-op Education Program (3-year Project)
Location:	Waterloo Region Board of Education (Waterloo, Cambridge, Kitchener)
Description:	Co-op is available to grades 11, 12 & OAC (13) and although focused on young women, is geared for all students. It was first implemented in Sept. '91 and, therefore, few tangible results are available as yet. Work is being done with grades 9 & 10 to expose the students to career options to help prepare them for their co-op opportunities.
Features:	An area of great importance in this initiative is the work being done to educate teachers about the learning differences between young men and women and the need to encourage young women. An idea just being developed is the use of positive peer models - young women both interested and successful in the maths and sciences who will, hopefully, share their interest and enthusiasm.
Resource Materials Used:	None given.
Resource Materials Produced:	Directorate material distributed after a presentation made by the Ontario Women's Directorate.
Evaluation Reports:	None given.
Contact Information:	Linda Barfoot, Co-op Education Coordinator Waterloo County Board of Education 51 Ardelt Ave. Kitchener, Ontario N2G 3X5 Phone: (519) 570-0300, Ext. 4306

Code: ON7	Schools: 6
Name:	Careers and Choices
Location:	Grey County, Ontario
Description:	Sixty grade 6 girls from the elementary schools in Grey County attend this one-day program which uses a "fun" approach to provide a series of games (including "Pictionary" and "Name that Trade"), role models and demonstrations to emphasize the need for math and science. The goal is to make girls aware of the necessity of long-term career planning and to realize the wide variety of non-traditional career opportunities available to them.
Features:	The girls see women doing interesting, challenging and fulfilling work. Math and science is emphasized, as well as how they apply and where they are useful.
Resource Materials Used:	Homemade games: • Pictionary - list of careers, flipchart, magic markers, timer. • Name That Trade - 'The Future is in Your Hands' poster from Ministry of Skills Development, Apprenticeship Branch.
Resource Materials Produced:	None given.
Evaluation Reports:	None given.
Contact Information:	Leslie Garnett 1101 - 2nd Avenue East, Suite 110 Owen Sound, Ontario N4K 2J1

Code: ON8	Schools: 7
Name:	Girls Grow Up - Alternative Careers Conference
Location:	Sudbury, Ontario
Description:	This is a two-day hands-on workshop which takes place in the Science and Technology Department at Cambrian College. The workshop is sponsored by the Women Teachers' Federation of Ontario, the Sudbury Board of Education, and Cambrian College. Approximately 100 girls at the Grade 7 level from all the public schools in the area are exposed to various programs in chemistry, geology, computer drafting, civil engineering, etc. The objective is to encourage girls to continue pursuing math and science and to introduce them to a variety of non-traditional careers.
Features:	• Female role models are used whenever possible. • All programs are hand-on. • All programs involve science, math, and technology.
Resource Materials Used:	Materials were provided by Women's Access to Apprenticeship Training (WAAT): *From the Ministry of Skills Development:* • Apprentices • The Apprenticeship Book • Do You Have the Right Combination? • The Future is in Your Hands • Labour Market Lore • Career Decisions • Breaking Barriers
Resource Materials Produced:	Not as a direct result of this activity but our Teachers' Federation has several related pamphlets and materials.
Evaluation Reports:	• Media coverage in the local newspapers. • Representatives from other communities have attended our workshop to get ideas • A report is sent to our Teachers' Federation office. Although no formal evaluation has been conducted, Judith Niesing has copies of the evaluation done by students, parents, and teachers attending the program.
Contact Information:	Judith Niesing 163 Wembley Drive Sudbury, Ontario P3E 1N3 Phone: (705) 674-6722 (home) (705) 522-8040 (work)

Code: ON9	Community Based

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Name: ON9	Women's Access to Apprenticeship Projects
Location:	Across Ontario
Description:	This program provides outreach activities to clients such as school boards, girls & young women, and employer groups. The goal is to increase the participation of women, employers and unions in non-traditional apprenticeships. It matches employers with prospective employees.
Features:	Some examples of activities are: • arranged for 100 grade 7 girls to participate in 2 days of hand-on experience in trades and technology programs; •presented "Trade Days" for girls at risk of dropping out - constructed electronic xylophones • mother/daughter banquet focusing on trades and technology.
Resource Materials Used:	None given.
Resource Materials Produced:	None given.
Evaluation Reports:	None given.
Contact Information:	Gayle Quirie, Provincial Coordinator Ministry of Skills Development 5th Fl., 625 Church Street Toronto, Ontario M4Y 2E8 Phone: (416) 326-5629

Code: ON10	Schools: K-13
Name:	Open Doors/Pathmakers
Location:	Across Ontario
Description:	Aimed at students in elementary and secondary schools, the goal is to provide them with role models pursuing careers in areas non-traditional for their gender, with a particular emphasis on math, science, and technology.
Features:	• Students get personal information which highlights the importance of keeping their options open and retaining math and science. • Community linkages further strengthen students' connection to local career information.
Resource Materials Used:	Manual - "Be All You Can Do!" - a how-to manual to create your own local role modelling program. The Video - "8 Hours a Day" adds further support. (1988) "More than Just A Job" - a comprehensive facilitator's guide to be used as a career education resource as well as a 15 minute video which profiles women and men who have made career choices based on their personal interests. (1990).
Resource Materials Produced:	Non-Traditional Career Event Kit - guide on how to plan and implement a non-traditional career event for young women in school or in the community (1992). Background materials and curriculum resources to encourage females into the field of math, science, and technology; an Annotated Bibliography. (1990)
Evaluation Reports:	Open Doors and Pathmakers evaluation forms are on file for consultation at the OWD. Media coverage: central and on local activities, on file at the OWD.
Contact Information:	Education and Training Equity Unit Ontario Women's Directorate 480 University Avenue, 2nd Floor Toronto, Ontario M5G 1V2 Phone: (416) 597-4561 (416) 597-5615

Code: ON11	Schools: 9-10
Name:	Workshop in Physics
Location:	Toronto, Ontario
Description:	Developed by York University, this workshop was a residential (4-day) program targetted towards grade 9 & 10 girls. There was a mix of lectures (many with female role models), demonstrations, lab projects and physical exercise designed to stimulate interest in the physical sciences, physics in particular.
Features:	Sessions were included with successful female physicists, showing: • women <u>can</u> do physics • women can do physics <u>and</u> have a normal life in other respects
Resource Materials Used:	No published material - a handbook of some 100 pages prepared for each occasion.
Resource Materials Produced:	Booklet on running the workshop is available at the address below.
Evaluation Reports:	No formal evaluation - always media attention, see e.g. Toronto Star editorial, 7 July, 1984; Toronto Star May 23, 1986; Globe and Mail, May 22, 1986.
Contact Information:	Dr. Robert H. Prince, Chair Dept. of Physics & Astronomy York University, 4700 Keele Street North York, Ontario M3J 1P3 Phone: (416) 736-5249 Fax: (416) 736-5516

Code: ON12	Schools: 6-8
Name:	Girls Exploring Technology
Location:	London, Ontario
Description:	The program consists of five one-week day camps for grade 6 to 8 female students to provide hands-on technical experience, tours, speakers and films. The camps take place at Fanshawe College.The objectives are: • to introduce senior elementary school girls to the concept of technical/non-traditional career choices; • to introduce applied physics and technical mathematics and their implications regarding career choices; • to develop an awareness of the importance of course choices at the secondary school level in order to maintain a variety of available career choices; • to foster an appreciation of physical environments and strengths contrary to the historical norm for women; and • to promote the importance of attitude awareness (historical/ present/future)
Features:	The content of the program includes safety, on job-site manoeuvres, fitness, career awareness and an introduction to computer literacy, AutoCAD, woodworking machines, basic mechanical, applied mathematics and physics, and automotive and welding demonstrations.
Resource Materials Used:	None given
Resource Materials Produced:	Girls Exploring Technology Video ($30) Girls Exploring Technology Instructional Manual ($10)
Evaluation Reports:	Evaluation available from contact & address below. On-going media coverage - print, radio, television
Contact Information:	Colleen P. Evetts Fanshawe College P. O. Box 4005 London, Ontario N5W 5H1

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Code: ON13	Schools: 7-8
Name:	Spotlight on Girls in Science & Technology
Location:	York Region, Toronto, Ontario
Description:	A one-day workshop wherein 3-4 grade 7 and 8 girls from each elementary school meet and talk with women working in a variety of science and technological careers. They discuss plans for their future and do some hands on science related to these careers.
Features:	The girls had an opportunity to meet women in careers such as astronomy, aerospace engineering, electrical engineering, geology, biomedicine, etc. A program for senior high girls has recently been developed. Contact Dr. Penny McLeod for further information (address below).
Resource Materials Used:	None given
Resource Materials Produced:	None given
Evaluation Reports:	None given
Contact Information:	Dr. Penny McLeod, Science Consultant (Home address)P. O. Box 550 Gormley, Ontario L0H 1G0 Phone: (416) 888-1341

Code: ON14	Post Secondary
Name:	Visiting Women Scholars
Location:	Queen's University, Kingston, Ontario
Description:	Visiting Women Scholars is a program funded by the Principal to bring women speakers to Queen's to talk to audiences which range from all female to mixed, depending on the speaker and topic. Visitors are asked to spend one or more days to meet students for a lecture, seminar, dinner meeting, etc. The Faculty of Applied Science participates in this program.
Features:	Students get a chance to meet successful women and to ask questions on their careers, research, etc.
Resource Materials Used:	None given.
Resource Materials Produced:	None given.
Evaluation Reports:	Informal feedback from students and faculty has been very positive. The number of requests for money to bring in women visitors and the number of interested people has increased every year in the Faculty of Applied Science.
Contact Information:	Anne-Marie Kraus, P. Eng. Special Assistant to the Dean Ellis Hall Queen's University, Faculty of Applied Science Kingston, Ontario K7L 3N6 Phone: (613) 545-2055 Fax: (613) 545-6500

Code: ON15	Post-Secondary
Name:	Applied Science Graduate Studies Dinner
Location:	Queen's University, Kingston, Ontario
Description:	An annual dinner is sponsored by the Dean of Applied Science at Queen's University to encourage women to pursue graduate work. The target audience is 3rd and 4th year female engineering students. A prominent woman is invited as the after-dinner speaker to serve as a role model for the students. Female engineering graduate students, female applied science professors and the Deans are also invited to serve as role models and to discuss career options with the students.
Features:	Female undergraduate students get exposure to females who have completed or are currently pursuing graduate work. This provides them with information on an option which they may not have considered, and a chance to meet new people.
Resource Materials Used:	None given.
Resource Materials Produced:	None given.
Evaluation Reports:	A questionnaire was distributed after the first dinner in 1989 and the response enabled the dinner to become an annual event.
Contact Information:	Anne-Marie Kraus, P. Eng. Special Assistant to the Dean Faculty of Applied Science, Ellis Hall Queen's University, Kingston, Ontario K7L 3N6 Phone: (613) 545-2055 Fax: (613) 545-6500

Code: ON16	Post-Secondary
Name:	Women in Engineering Conference
Location:	Queen's University, Kingston, Ontario
Description:	With the goal of fostering discussions among male and female students on gender related issues to lead to greater understanding, the first Women in Engineering conference was attended by about 150 people in October 1991. The delegates consisted of about 75% female engineering students and 25% male students, female and male faculty, and a few people from industry as well as 10 - 15 female high school students.
Features:	The conference offers: information on womens' issues, an opportunity to discuss and ask questions on important issues, networking and interaction between students (female and male), faculty (female and male), people from local industry and guest speakers.
Resource Materials Used:	Book, pamphlets and articles from many sources, especially the Ontario Women's Directorate.
Resource Materials Produced:	A pamphlet on the use of gender-neutral language is being prepared for the October 1992 conference.
Evaluation Reports:	Informal reviews have taken place by: • the organizing committee • the Dean of Applied Science • the delegates for the 1991 conference
Contact Information:	Anne-Marie Kraus, P. Eng. Special Assistant to the Dean Ellis Hall Queen's University, Faculty of Applied Science Kingston, Ontario K7L 3N6 Phone: (613) 545-2055 Fax: (613) 545-6500

Code: ON17	Schools: K-6
Name:	Science Quest
Location:	Kingston, Ontario
Description:	Science Quest, a summer camp on engineering for elementary school children, was devised, developed, financed and operated by the Engineering Society, Queens University, in 1988. It involves an equal number of boys and girls to ensure that girls are encouraged in the sciences, and most of the instructors and all of the Directors have been women engineering students. Similar camps have begun to appear on campuses throughout Canada. In 1990, Science Quest for Teachers began with a workshop for elementary school teachers and the production of a workbook for use in the schools.
Features:	The camp offers exciting hands-on experience for children.
Resource Materials Used:	Contact "Science Quest "for details.
Resource Materials Produced:	"Science Quest - the Book" has been developed for teachers. It includes ideas to be used in the classroom.
Evaluation Reports:	Each student is given a feedback sheet at the end of their camp.
Contact Information:	"SCIENCE QUEST" Clark Hall, Queen's University, Kingston, Ontario K7L 3N6 Phone: (613) 545-6870 Fax: (613) 545-6678

Code: ON18	Post-Secondary
Name:	Gender Issues in Engineering and Related Sciences (planned for 1993)
Location:	Faculty of Applied Science, Queen's University, Kingston, Ontario
Description:	Conceived and developed by a female faculty member, this course will include: •Historical perspectives on the position, role and contributions of women in technology, engineering and related sciences. • Biographies of selected women engineers and scientists. • Contemporary concerns and gender issues in engineering: position of women in the profession, barriers and obstacles, policies.
Features:	This course will be available to women and men and will open up discussions on these very important subjects.
Resource Materials Used:	Contact Dr. Genevieve Dumas for details.
Resource Materials Produced:	Contact Dr. Genevieve Dumas for details.
Evaluation Reports:	Contact Dr. Genevieve Dumas for details.
Contact Information:	Dr. Genevieve Dumas Queen's University - Mechanical Engineering Kingston, Ontario K7L 3N6 Phone: (613) 545-2648 Fax: (613) 545-6489

Code: ON19	Post Secondary
Name:	Extended Program
Location:	Faculty of Applied Science, Queen's University, Kingston, Ontario
Description:	The program provides an opportunity for approximately 90 first year students to compensate for difficulties experienced in chemistry, mathematics and physics by making available instruction in these subjects (beginning in January) at a slower pace than in the normal first year. This requires the addition of an extra term of seven weeks following the regular academic year, during which the student concentrates on completing the year's work in chemistry, mathematics and physics.
Features:	The extended program retains students who would otherwise leave or be forced to leave school due to academic difficulties in their first year. The program is open to all students but has been more popular with female students.
Resource Materials Used:	None given.
Resource Materials Produced:	None given.
Evaluation Reports:	Feedback is sought from students each year in order to improve the program.
Contact Information:	Anne-Marie Klaus, P.Eng. Special Assistant to the Dean Faculty of Applied Science, Ellis Hall Queen's University Kingston, Ontario K7L 3N6 Phone: (613) 545-2055 Fax: (613) 545-6500

Code: ON20	Schools: 10
Name:	Promoting Women in Science (PROWIS)
Location:	Kitchener-Waterloo, Ontario
Description:	Hosted by Wilfrid Laurier University, PROWIS is an annual three day mathematics and science conference for young women. The aim is to acquaint female students in grade 10 with careers and research in science and math through workshops presented by faculty and staff from mathematics, biology, chemistry, physics, computing, geography, psychology and physical education. Each student participates in four 2.5 hr sessions, as well as in group activities and social events to provide more informal opportunities for interaction. The highlight is a banquet during which participants meet and talk with women from the local community whose careers are in math or science-related fields, and a guest speaker discusses issues of interest and concern to young women planning careers in science or math.
Features:	•One criterion used to select the participants is the anticipated impact of the conference on their immediate and future academic choices. • Workshops provide hands-on experiences designed to demonstrate that science and mathematics are interesting and exciting. • The 3-day conference allows the young women to explore their past experiences and future objectives. •All organizers (50% of whom are women) are committed to the goals of the program and informal discussions during and after the workshops. •Role models are provided by the female faculty and staff, by female undergraduate science students and by invited guests.
Resource Materials Used:	Workshops are designed and implemented by the workshop organizers. None involve externally produced resource materials.
Resource Materials Produced:	A database of young women who applied for the program and of those who attended has been established.
Evaluation Reports:	• Inhouse evaluations by participants, faculty and staff are used to assess the immediate success of the program. • The program receives local TV, radio and press coverage as well as some radio and press coverage in the home towns of the participants.
Contact Information:	Dr. Mary Ann Fields, Assistant Dean (Science) Wilfrid Laurier University 75 University Ave. E Waterloo, Ontario N2L 3C5 Phone: (519) 884-1970 Fax: (519) 884-8854

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Code: ON21	Schools: 9-10
Name:	Job-Site Visits
Location:	Toronto, Ontario
Description:	Offered to grade 9 and 10 female students and to all math and science teachers and guidance counsellors in secondary schools, this program has had 170 staff and 1400 students involved. The goals are: • to update teachers and counsellors on the ever-changing applications of math and science in the workplace; • to help teachers encourage and motivate students, especially females, to pursue the study of math and science; • to help teachers and counsellors become more effective in career counselling for female students; • to demonstrate to female students that careers goals based on math and science are attainable and rewarding; • to publish curriculum proposals relevant to current developing technologies and occupations; • to promote awareness and understanding of the changing character of women's participation in the work force and society.
Features:	Each year, approximately twelve companies participate in the program, and teachers and counsellors visit one or more work sites in groups, in preparation for choosing sites. There are also several information sessions and workshops throughout the year.
Resource Materials Used:	A list of resource materials is available from Marion Levi at the address below.
Resource Materials Produced:	A curriculum package of five lessons which deal with the issues of male/ female stereotyping, salary differentials, non-traditional careers, careers which require math and/or science, and preparing students for the Job-Sites visits and is available for teachers and counsellors participating in the program from Guidance and Counselling Services (see address below).
Evaluation Reports:	Each year students and teachers provide written evaluations and year-end evaluation meetings are held with the participating companies and Toronto Board staff. These evaluations are internal documents but could be made available to interested parties on a request basis.
Contact Information:	Marion Levi - Guidance Department Toronto Board of Education 155 College Street Toronto, Ontario M5T 1P6 Phone (416) 591-8284 Fax: (416) 393-9969

Code: ON22	Other Resources
Name:	Career Selector - Science and Technology
Location:	Across Ontario
Description:	With guidance counsellors and female students as the targetted audience, Career Selector is one of a series of booklets to help young women make career choices. This booklet describes approximately 50 occupations in the science and technology fields by providing information in each case about the work, working conditions, training, salary and job prospects. Emphasis is placed on considering a wide range of occupations in order to make informed career decisions.
Features:	This booklet emphasizes the importance of math, problem-solving, and computer skills. Each occupation also lists the qualifications and training required, typically including math and science.
Resource Materials Used:	None given.
Resource Materials Produced:	None given.
Evaluation Reports:	None given.
Contact Information:	Education and Training Equity Unit Ontario Women's Directorate 2nd Floor, 480 University Ave. Toronto, Ontario M5G 1V2 Phone: (416) 597-4587 Fax: (416) 597-4594

Code: ON23	Other Resources
Name:	Math Poster
Location:	Across Ontario
Description:	Designed for educators and students, this poster provides information about the long-term employment consequences of dropping math, simultaneously raises awareness of a range of jobs, and stresses the importance of math in keeping options available. It lists 152 fields of activity requiring math and there are 13 write-overs presenting jobs that seem appealing to teenagers. The poster is a bilingual flip.
Features:	None given.
Resource Materials Used:	None given.
Resource Materials Produced:	None given.
Evaluation Reports:	None given.
Contact Information:	Education and Training Equity Unit Ontario Women's Directorate 2nd Floor, 480 University Ave. Toronto, Ontario M5G 1V2 Phone: (416) 597-4561 Fax: (416) 597-5615

Code: ON24	Other Resources
Name:	Mathematics, Science and Technology: An Annotated Bibliography
Location:	Across Ontario
Description:	• The Bibliography contains background materials and curriculum resources to encourage entry and retention of females in the fields of math/science/technology • It also includes an annotated reference list of books, articles, newsletters and curriculum materials and information on distributors and locations of resources centres and libraries
Features:	There are many examples of curriculum, resources and programs which educators can use to retain girls and young women in math/science/technology.
Resource Materials Used:	None given.
Resource Materials Produced:	None given.
Evaluation Reports:	None given.
Contact Information:	Education and Training Equity Ontario Women's Directorate 480 University Ave., 2nd Floor Toronto, Ontario M5G 1V2 Phone: (416) 597-4561 (416) 597-5615

Code: ON25	Schools: 11-13
Name:	Scientifically Yours
Location:	Ontario - Niagara Region, including Hamilton and Halton
Description:	Scientifically Yours is a three-day residential workshop designed to encourage young women to continue their studies in the sciences and to pursue careers in science-related fields. The workshop provides an opportunity for approximately 60 female students from local high schools to learn more about science in a university setting. Everyone participates in four of twelve science and math projects, and gets hands-on laboratory and group experience in the process. The event includes a gender stereotyping workshop, field trips and leisure and recreational activities. The workshop is conducted with the assistance of university student mentors and faculty.
Features:	The program includes interaction with professional women who have careers in the sciences, including medicine, academia and industry. These women share their insights and experiences, both professional and personal, with the girls.
Resource Materials Used:	None given.
Resource Materials Produced:	None given.
Evaluation Reports:	The girls complete an informal evaluation every year which consists of a very simple questionnaire. Copies available at the address below. The program has had TV, radio and newspaper coverage for the past three years.
Contact Information:	Ronika Fraser Office of External Relations Brock University St. Catherines, Ontario L2S 3A1 Phone: (416) 688-5550, Ext. 3245 Fax: (416) 641-5216

Code: ON26	Other Resources
Name:	Speakers Directory
Location:	Kingston, Ontario
Description:	Kingston and Area School to Employment (KASE) and Queen's Faculty of Applied Science have developed a speakers directory of volunteer scientists and engineers in the Kingston area who are willing to speak at schools, participate in career days, etc. The directory is being sent to schools K to OAC to offer our services to them. The directory is being coordinated by KASE and Queen's but volunteers come from local industry, hospitals, community college, Queen's, Royal Military College, etc. The Directory has both men and women. If asked, we can provide all women speakers to a school running an all-girls career day.
Features:	Teachers can access interested scientists and engineers who are willing to tell students about their work.
Resource Materials Used:	None given.
Resource Materials Produced:	Speakers Directory binders for schools.
Evaluation Reports:	None given.
Contact Information:	Anne-Marie Kraus, P. Eng., Special Assistant to the Dean Faculty of Applied Science, Ellis Hall Queen's University Kingston, Ontario K7L 3N6 Phone: (613) 545-2055 Fax: (613) 545-6500

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Code: ON27	Community Based
Name:	Water for Tomorrow
Location:	Across Canada
Description:	Water for Tomorrow is a national program established in partnership with Environment Canada. Through this program, members of Girl Guides of Canada - Guides du Canada develop action steps and participate in activities contributing to the long-term resolution of national environmental problems related to water. For example, specific water conservation activities at home and at camp, visiting and supporting protected resource areas such as parks and wetlands. The objective is to educate members of the organization and the public about the importance of clean water and to take action to help ensure clean water supplies for future generations.
Features:	National and regional activities are initiated, both through the "Water for Tomorrow" program and through projects with Environment Canada, Canadian Heritage Rivers System, Pitch-In Canada, Canadian Wildlife Federation, Canadian Recreational Canoe Association, Friends of the Environmental Education Society of Alberta ("Adopt-a-Stream"), etc. One of the objectives of the program is to provide active encouragement for the development of environmental leadership skills, and to promote career development in the water sciences among young women.
Resource Materials Used:	A great variety of publications from government departments and environmental organizations - some were free, others for sale.
Resource Materials Produced:	A special issue of the Canadian Guider is dedicated to Water for Tomorrow activities. This publication was sent to all adult members and has recently been reprinted for sale, price not yet determined.
Evaluation Reports:	An informal evaluation is currently in progress. There has been media coverage of the activities in communities across Canada.
Contact Information:	Anne McRuer, Executive Assistant National Youth Services, Girls Guides of Canada 50 Merton Street Toronto, Ontario M4S 1A3 Phone: (416) 487-5281

Code: ON28	Schools: 11-13
Name:	School to Workplace Apprenticeship Program
Location:	Across Ontario
Description:	This program is sponsored by the Ministry of Education and the Ministry of Skills Development to enable secondary school students to train as registered apprentices while working towards a high school diploma.
Features:	•It enables students to gain employable skills and to complete grade 12. • It necessitates continued enrolment in math and science. • It is offered by 33 school boards to over 700 students. • It has 12% participation by girls.
Resource Materials Used:	None given.
Resource Materials Produced:	None given.
Evaluation Reports:	None given.
Contact Information:	Dr. Grant Clarke Ministry of Skills Development 625 Church St. 5th Floor Toronto, Ontario M4Y 2E8

Code: ON29	Other Resources
Name:	Diversifying the Language
Location:	Queen's University, Kingston, Ontario
Description:	A pamphlet entitled "Diversifying the Language" is currently being developed as training on the use of gender-neutral language and examples in the classroom. The target audience is faculty, staff and students in the Faculty of Applied Science at Queen's. It will be distributed to all engineering faculty and will be discussed at department meetings and at the October 6, 1992 Women in Engineering Conference at Queen's.
Features:	Training and awareness will occur as a result of the pamphlet and discussion on how language affects women.
Resource Materials Used:	None given.
Resource Materials Produced:	In progress; completion expected in September 1992.
Evaluation Reports:	None given.
Contact Information:	Anne-Marie Kraus, P. Eng., Special Assistant to the Dean Faculty of Applied Science, Ellis Hall Queen's University Kingston, Ontario K7L 3N6 Phone: (613) 545-2055 Fax: (613) 545-6500

Code: PE1	Schools: 8
Name:	PEI Women Do Math & Science 1992 Conference
Location:	Prince Edward Island
Description:	This was a one-day conference which was attended by 175 grade 8 girls and approximately 40 parents. They spent the day on the UPEI campus learning about women presently working in math and science in PEI and in Canada. The girls were encouraged to consider math and science study options and career opportunities in their own lives. The keynote speaker, a cartoonist and author of children's science books, was enthusiastically received by the students, parents and volunteers alike as she spoke about her own decision to pursue math and science.
Features:	Thirteen professional women represented the twelve fields of accounting, agriculture, architecture, computers, electronics, engineering, food science and technology, forestry, health services, marine environmental science, mathematics and veterinary medicine. Parents participated in workshops designed for them in the areas of guidance counselling, employment opportunities and financial planning.
Resource Materials Used:	Most helpful was a binder containing samples of work completed by other conferences for grade 7 - 9 girls in other provinces ($30): Contact: Ms. Infinity Math & Science Conferences for Young Women Society for Canadian Women in Science & Technology P.O.Box 2184 Vancouver, B.C. V6B 3V7
Resource Materials Produced:	A final report is available from the PEI Advisory Council on the Status of Women, P.O.Box 2000, Charlottetown, PEI, C1A 7N8. Poster, pamphlet, book label/stickers, and button samples are also available on request.
Evaluation Reports:	• Media coverage tripled over last year's public relations. Radio, TV, journals, newsletters and newsprint promoted the conference, pre- and post-event. The conference was also announced in the legislature. • Evaluation was an internal one whereby conference participants completed a questionnaire.
Contact Information:	Laurie Murphy, Coordinator, Women Do Math & Science Conference c/o Steering Committee 84 Great George Street Charlottetown, P.E.I. C1A 4K4 Phone: (902) 566-4513 Fax: (902) 368-5544

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Code: SK1	Schools: 7-8
Name:	Girls Exploring Technology
Location:	Regina, Saskatchewan
Description:	Three 5-day summer camps were held at the Wascana Campus of The Saskatchewan Institute of Applied Science and Technology, with 10 students at each camp. The students participated in hands-on activities such as working with computers and designing and constructing experimental machines. They also met women who have successfully pursued non-traditional occupations in construction and engineering, visited the Saskatchewan Science Centre and toured a construction site.
Features:	The program focuses on girls in grade 7 - 8, involves mentoring and provides hands-on activities.
Resource Materials Used:	None given
Resource Materials Produced:	Final report: Girls Exploring Technology Pilot Program (Dec '91) available from contacts mentioned below.
Evaluation Reports:	Participant surveys were conducted and informal evaluation sessions held.
Contact Information:	Ted Walker, Resource Coordinator Apprenticeship & Trade Certification Saskatchewan Education 1855 Victoria Avenue Regina, Saskatchewan S4P 3V7 or Kathy Hamre 200 - 2101 Scarth Street Regina, Saskatchewan S4P 2H9 Phone (306) 780-7294 (306) 780-6630

Code: SK2	Schools: 11-12
Name:	Career Mentoring for Women in Science
Location:	Saskatoon, Saskatchewan
Description:	This program is directed at grades 11 and 12 to encourage female students to pursue a career in science by matching students with women working as scientists, engineers and technologists. In 1992, more than 100 girls were matched with 70 volunteer mentors from more than 25 federal, provincial and private-sector agencies.
Features:	Students are provided an opportunity to visit the workplace of a female scientist, tour her workplace and field work. This often results in an ongoing relationship between the student and the scientist.
Resource Materials Used:	None given.
Resource Materials Produced:	Brochures used to recruit students and mentors are available. There are plans to prepare a "How To" handbook for other organizations starting similar programs, a science career catalogue for students and guidance counsellors, and an inventory of local science agencies willing to provide youth tours.
Evaluation Reports:	A 5-year study has begun to evaluate the effectiveness of the program, including an assessment and recommendations specific to program delivery. It also follows the students for 5 years to determine whether they undertake post-secondary studies in science and technology and whether they work in these fields. There has been extensive local media coverage, some national coverage inquiries from across Canada.
Contact Information:	P. A. Chambers National Hydrology Research Institute 11 Innovation Blvd. Saskatoon, Sask. S7N 3H5

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Code: SK3	Post Secondary
Name:	Extended Level One Carpenter Apprenticeship for Women
Location:	Saskatchewan
Description:	This is a 14-week basic carpentry course under the tutelage of a female construction worker and a female carpenter who operates her own home-renovation company. Upon completion of the course, the student will write a level 1 apprenticeship exam. The program is available to women having a minimum of grade ten education or equivalent, who are unemployed and eligible to collect unemployment, and who are seriously interested in completing an apprenticeship in the carpenter trade.
Features:	The program provides: • a non-threatening training environment for women entering apprenticeship in the carpenter trade • an adequate time frame for women apprentice carpenters to develop the skills and attitudes necessary to complete an apprenticeship and continue to work in the construction industry • industry orientation for women entering apprenticeship in non-traditional employment.
Resource Materials Used:	Level One Carpenter Apprentice Curriculum
Resource Materials Produced:	None given
Evaluation Reports:	Level One Carpenter examination Apprenticeship examinations not available Media coverage in the Leader Post
Contact Information:	Doug Muir, Director Apprenticeship & Trade Certification Saskatchewan Education 4th Floor, 1855 Victoria Avenue Regina, Saskatchewan S4P 3V7

Code: SK4	Schools: K-12
Name:	Speaker's Program
Location:	Across Saskatchewan
Description:	The main audience is primary and secondary school children. However, university, other professionals, such as guidance counsellors and teachers, and the general public may request speakers. The goal is to increase the number of young women in engineering (science and technology). Visits are usually of one hour duration and occasionally on career days.
Features:	The Women in Engineering Advisory Committee (WEAC) is in the process of recruiting about 60 women engineers in Saskatchewan to be incorporated into the Innovators Speakers list. Through the "role model" approach, we can show that women can succeed in the still non-traditional careers in engineering.
Resource Materials Used:	Pamphlets on engineering are available from the University of Saskatchewan, University of Regina, The Association of Professional Engineers of Saskatchewan.
Resource Materials Produced:	A video has been produced but is not yet available for distribution.
Evaluation Reports:	No formal or informal reviews have been done to date. However, the Innovators program is working on the review process and is reviewing their pilots.
Contact Information:	Karen A. Kelly, P. Eng. c/o Clifton Associates Ltd. 340 Maxwell Crescent Regina, Saskatchewan S4V 0L7

Code: YK1	Other Resources
Name:	You Make the Choice, Yukon Women in Science, Trades and Technology
Location:	Whitehorse, Yukon
Description:	This is a booklet on Yukon women in non-traditional occupations, targetted toward Grades 7 - 9 students. It was a Canadian Congress for Learning Opportunities for Women (CCLOW) project with financial assistance of the Yukon Government Community Development Fund.
Features:	The booklet was written to appeal to a young person in grades 7 - 9. The design is attractive and lively and the writing style is friendly. The booklet poses questions that could be explored further by the students in the class. It will be accompanied by a brief teaching guide for guidance teachers.
Resource Materials Used:	None given
Resource Materials Produced:	There is a limited supply of booklets. Available from: Advanced Education, Department of Education Government of the Yukon.
Evaluation Reports:	Recently printed
Contact Information:	Elda Ward, Coordinator, Policy and Programs Women's Directorate, Government of the Yukon Box 2703, Whitehorse, Yukon Y1A 2C6 Phone (403) 667-3026

Code: YK2	Schools: 8-10
Name:	Ms. Infinity - Women Do Math
Location:	Whitehorse, Yukon
Description:	Ms. Infinity is a one-day conference of math and science activities and workshops for 80 - 100 young women in grades 8 - 10 (previously grades 7 - 9). It provides an opportunity for them to meet and spend time with professional women in fields such as engineering, astronomy, trades, archaeology, computer science, environmental chemistry, pure mathematics, medicine, psychology, and to learn about the excellent career possibilities and attractive lifestyles offered by these fields.
Features:	The young women were treated as adults, given the same respect and perks such as morning brunch, a luncheon, door prizes, T-shirts etc. The workshops are creative and stimulating, and they present maths and sciences through "hands-on" experiences for the participants.
Resource Materials Used:	Materials were received from the Society for Canadian Women in Science and Technology (SCWIST) and the Department of Mathematics and Statistics at Simon Fraser University. Tasoula Bergren, Math Professor at SFU was initial coordinator of "Women Do Math".
Resource Materials Produced:	Materials are developed and produced each year. For ideas on workshop topics and outlines, contact the Women's Directorate, (403) 667-3030 or Industry, Science and Technology Canada at (403) 668-4655.
Evaluation Reports:	An evaluation of the first year's conference was done as a requirement of the Secretary of State funding to Simon Fraser University. A copy is available through the Women's Directorate, Government of the Yukon. As well, articles on media coverage can be sent upon request.
Contact Information:	Elda Ward, Coordinator, Policy and Programs Women's Directorate, Government of the Yukon Box 2703, Whitehorse, Yukon Y1A 2C6 Phone (403) 667-3026

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